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THE GEOGRAPHY OF THE PEACE

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THE Geography of the Peace

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The maps represent completely the ideas of Professor Spykman and were, for the most part, sketched by me under his supervision. The finished drawings were executed by J. McA. Smiley with admirable skill and fidelity to the originals.

Four of the maps, numbers 3, 4, 18, and 19, are adaptations of projections originally drawn by Richard Edes Harrison, who has generously given us permission to use them. Two other maps, numbers 11 and 50, are based on maps drawn for *Fortune* Magazine by Mr. Harrison. It is a pleasure to acknowledge the co-operation of both Mr. Harrison and *Fortune* Magazine.

HELEN R. NICHOLL

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An Introductory Statement

IF there is one field in which the planning of our statesmen has proved completely inadequate, it is in the maintenance of national security. In spite of having what appears to be the safest position of any nation in the world, we have been involved in two devastating world wars in the space of a quarter century, and, at least in the second one, we were at one point in serious danger of defeat. While the record of our actions shows that our statesmen were certainly not indifferent to the fate of the nation, it also shows that their expectations regarding the outcome of their actions were consistently wrong, and that their methods of thinking about the problem generally failed to provide successful answers. Hence there is good reason why we should seek by every possible means to improve our tools of analysis and ways of approach to this most difficult of all subjects.

In recent years little advance has been made in the theoretical study of the problem of security in international relations. In fact, the world did not even recognize the one significant contribution which was made by the English geographer, H. J. Mackinder, in his article "The Geographical Pivot of History" published in 1904. From a study of geographical location, he derived some general conclusions which he applied to the security position of the British Empire. Unfortunately the geographical approach to the problem was taken over by Haushofer and the German school of geopolitics, and distorted into a pseudo-scientific justification for a policy of territorial expansion. In other countries, little attention was paid to the subject.

The late Professor Nicholas John Spykman of Yale University was one of the few American scholars to perceive that, in ignoring the geographic factor, we were overlooking a very important source of light on the subject of security. The more he studied the location of this country in relation to the rest of the world, the more he became convinced that our security policy was unrealistic and inadequate. While he was aware that the methods of the early geopoliticians were crude and inaccurate, he nevertheless saw that they brought to light many pertinent facts which our policy makers were ignoring.

Professor Spykman's first published work in this field was a series of articles on the relation between geography and foreign policy, which appeared in *The American Political Science Review* in 1938 and 1939.* Thereafter he undertook to study from this viewpoint the policy of hemisphere defense, which was strongly advocated in the United States at the time as the best means of escaping involvement in Europe's wars. Superficially there seemed to be much in its favor. The broad expanses of the Atlantic and Pacific Oceans appeared to provide almost impregnable barriers to invasion from Europe or Asia, and the immense supplies of raw materials in this hemisphere seemed to free us from dependence on outside sources. Apparently all we had to do was to keep the Panama Canal open and then sit back and wait for an invader to approach within range of our guns.

The analysis made by Professor Spykman showed conclusively that this was a dangerous illusion. Against a determined attack launched by a power or group of powers controlling the European mainland, our chances of defending ourselves

* "Geography and Foreign Policy" by Nicholas J. Spykman, *The American Political Science Review*, Vol. XXXII, Nos. 1 and 2, February and April, 1938; "Geographic Objectives in Foreign Policy" by Nicholas J. Spykman and Abbie A. Rollins, *op. cit.*, Vol. XXXIII, Nos. 3 and 4, June and August, 1939.

on this side of the Atlantic were small indeed. Only if the British fleet were in complete control of the Atlantic and Pacific, and if we were able to use the British Isles as an advance base against the continent of Europe, could we be at all sure of our chances of survival.

The results of this analysis were put into a book which was published by the Yale Institute of International Studies in March, 1942, under the title *America's Strategy in World Politics*. There was immediate recognition that this book represented an important step forward toward a more adequate understanding of the security problem of the United States. Many of the conclusions reached by Professor Spykman have since won wide acceptance and have been incorporated in current literature on the foreign policy of the United States.

It was Professor Spykman's intention to write another book in which he would develop further his views on the subject of power in international relations and on the place of geopolitical analysis in the formulation of a security policy. As an initial statement of his position, he delivered a lecture in the autumn of 1942 on the specific subject of the security position of the United States in the present world. This lecture was extensively illustrated with slides of maps which he had made to show the significance of geographic location in the problem of security. A stenographic record was kept of this lecture, and it was his intention to use the record and maps as the basis for his new book. However, he became ill shortly afterward, and died on June 26, 1943, without having had any opportunity to carry out his intention.

We in the Institute who were familiar with the work he had done were very anxious that the fruits of his labors on the American security problem should not be lost. It was accordingly decided to try to carry out his plan, so far as possible, and to publish a book based on his lecture and maps, together with certain other notes and correspondence which further elucidated his views. The work was entrusted to Miss Helen R. Nicholl of the Institute staff, who had worked for two years with Professor Spykman as his research assistant and was thoroughly familiar with his views and methods of analysis.

The result is the present volume. Miss Nicholl has carried out her difficult assignment with great skill and imagination, as well as with real fidelity to Professor Spykman's own plan and intentions. Although a good proportion of the writing is new, she has managed to keep closely to his thoughts and even to his phraseology and style. One finds here a clear and comprehensive exposition of the method of geopolitical analysis as applied to the most fundamental problem of our foreign policy, that of American security in the post-war world. The results of the analysis provide much food for thought, as well as certain clear guides to action for those who are charged with the making of our foreign policy. It is difficult to see how a coherent and workable security policy can be arrived at without paying close attention to the analysis and conclusions of Professor Spykman.

The principal lesson is clear. The most important single fact in the American security situation is the question of who controls the rimlands of Europe and Asia. Should these get into the hands of a single power or combination of powers hostile to the United States, the resulting encirclement would put us in a position of grave peril, regardless of the size of our army and navy. The reality of this threat has been dimly realized in the past; on the two recent occasions when a single power threatened to gain control of the European mainland, we have become involved in a war to stop it. But our efforts have been belated and have been carried out at huge cost to ourselves. Had we been fully conscious of the implications of our geographical location in the world, we might have adopted a foreign policy which would have helped to prevent the threat from arising in the first place.

It is to be expected that there will be some misinterpretation of the implications of this thesis. There will doubtless be some critics who will say that it is not our business to prevent by armed force the unification of Europe or Asia under one power, that such an act would be an undue interference in other people's business.

The best answer to such criticism is to consider

the probable situation in Europe and the Far East at the close of this war. The rimlands of Europe will be for the most part in the hands of democracies who will be profoundly concerned to regain their full independence. Any proposal for the unification of Europe would tend to put them in a subordinate position to Germany (regardless of the legal provisions of the arrangement) since Germany, unless broken up into fragments, will still be the biggest nation on the continent. It is hardly conceivable that countries now fighting for their freedom would turn around and voluntarily submit to any such arrangement. It is equally improbable that the United States, after having made such tremendous sacrifices to help free these countries from the German yoke, would consent to the restoration of German domination. Any such unification could only be brought about by aggressive action. What the thesis of the present book makes abundantly clear is that it is to the interest of this country to throw its weight into the scales to prevent any such aggressive action from taking place. For if it is allowed to occur, it will inevitably involve us in a third world war, and this time the outcome may not be so favorable for us.

It is equally unlikely that the United States would be called upon for armed intervention in the Far East to prevent the domination of that area by a single power. Japan, presumably, will be taken care of at the close of the war in such a manner that she will not be a real threat in this respect for some time to come.

China likewise will not be in a position to extend her control over the whole Asiatic littoral. The northern rimland will continue in the hands of Soviet Russia, and there is no reason to suppose that the countries to the south, e.g., Indo-China, Thailand, and Burma, would voluntarily submit to any plan of unification under Chinese domination. As in the case of Europe, unification could only be brought about by forceful aggression. But China is not even strong enough at present to effect unification within her own borders, and it will be a long time before she will have the military power to force other nations to submit to her control. Of course if China should try to embark on a program of aggression in the Far East, we could as little afford to ignore this threat as any other in Europe or Asia. The possibility, however, of China undertaking such a program seems to be very remote.

One other power, Soviet Russia, might conceivably seek to unify the European rimland by embarking on a program of territorial expansion in Western Europe. If at the same time she extended her domain in the Far East, we would undoubtedly be in a position of great danger. But there are many excellent reasons for concluding that such a contingency is not to be expected, and that it would be against Russia's interest to try it. There is not space enough to develop these reasons here; they are being dealt with in another study to be issued shortly by the Institute under the authorship of William T. R. Fox. Suffice it to point out that the continued existence of a group of independent states on the rimland of Europe is almost as advantageous to Russia as it is to us, since it provides her with a buffer against a possible Anglo-American combination against her.

Hence there is little basis for apprehension that a security policy based on Professor Spykman's analysis would involve us in an active program of forceful intervention to prevent European or Asiatic unification. What the analysis does emphasize with great clarity is the importance of our taking our rightful part in world affairs as a means of assuring peace in general and our own security in particular.

It is interesting to note that the conclusions as to policy arrived at in this study correspond very closely to the proposed aims and ideals of many people who, nevertheless, reject power as a basic factor in international relations. Thus Professor Spykman's analysis makes a very strong case for the active participation of the United States in world affairs. It gives excellent reasons why we should take common action with other nations to prevent aggression. It suggests very clearly what we have to do in order to devise an effective international security system in terms of the world we are likely to find at the close of the war. There would accordingly seem to be no reason why lib-

eral-minded people should hesitate to make use of a method of analysis which frankly accepts the role of power in the international world.

The true cosmopolitan—whose only allegiance is to humanity—may be offended by an analysis which is frankly based on national interest. But it is surely no argument against responsible participation by the United States in world affairs that Professor Spykman has demonstrated that such participation is in our national interest. The precept "Honesty is the best policy" seems amoral or even immoral to those who do not wish to be guided solely by self-interest, but they need not for that reason become dishonest.

Since the theoretical aspects of political geography are generally unfamiliar to laymen and even to some of those in charge of our foreign affairs, it has been thought advisable to include in the present volume a chapter on maps and some exposition of the fundamentals of geopolitics. This has been kept to the minimum amount necessary for an understanding of the method of geopolitical analysis. For a very little effort, it offers the reward of an extremely useful tool in the study of the most fundamental problems of our foreign policy.

I cannot close without paying a personal tribute to the memory of my friend and colleague, Nicholas Spykman. My association with him over a period of years was one of the most rewarding experiences of my life. It was he who induced me to come to Yale, at the time when, as a result of his own efforts, the University was establishing the Department of International Relations and the Institute of International Studies. Professor Arnold Wolfers and I were associated with him in this high adventure from the beginning, and the partnership proved to be a remarkably happy and fruitful one. Under Professor Spykman's leadership, both the Institute and the Department soon got on a smoothly running basis, and since then have enjoyed a lusty growth. He was a prodigious worker and was master of a number of different fields of learning. I never knew him to hesitate in following the logic of his thinking, even though it led to conclusions which were personally unpalatable to him or unpopular with his friends. His brilliance as a lecturer has left a lasting impression on a long line of Yale students. The fact that he died at the comparatively early age of forty-nine represents an inestimable loss to American scholarship as well as to the practical field of American diplomacy. No one knows better than his colleagues in the Institute how great that loss was.

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Director

Yale Institute of International Studies
New Haven, Connecticut
November 1, 1943

THE GEOGRAPHY OF THE PEACE

I. Geography in War and Peace

WE are confronted today with the spectacle of the great nations of the world engaging in a tremendous struggle for sheer physical power. Millions of tons of steel and gunpowder, billions of dollars, and untold quantities of human energy are being hurled against each other in the attempt of rival groups of men to establish their ideas and principles as the basis for a world order. The situation suggests that neither the self-evident truth of our principles nor the divine basis of our moral values is in itself enough to assure a world built in the image of our aspirations. Force is manifestly an indispensable instrument both for national survival and for the creation of a better world. Yet, at the very moment when the most fundamental values of our civilization are being saved from complete destruction only by the exercise of naked power, studies of the nature of power in international relations and investigations into the strength and weakness of the power position of our own country are met with raised eyebrows and shocked disdain. There is a tendency, especially among certain liberals and many who call themselves idealists, to believe that the subject of power in the international world should not be spoken of except in terms of moral disapproval. They consider that studies concerning the organization of peace and security should deal only with the ideals of our democratic civilization and visions of a better world order in which power will play no part.

As a matter of fact, political ideals and visions unsupported by force appear to have little survival value. Our Western democracies certainly owe their existence and preservation to the effective use of power, either on their own part or on the part of an ally. The British Empire, France, the Scandinavian countries, and certain small states of Europe have, in the past two centuries, developed the blessings of democracy to their highest point. Since 1940, however, Norway, Denmark, Holland, Belgium, and France have been forced to live under the heel of a ruthless dictator, and many of the monuments associated with the struggle for liberty in Britain are now gaping bomb craters and piles of rubble. The small states had no power and Great Britain and France neglected to develop theirs. The fate of our whole civilization has depended on whether an invaded Russia, the British Empire with its back to the wall, and the United States coming in at the last moment, could develop quickly enough the instruments of force necessary to defeat their common enemy. That adversary had built up great agglomerations of power which were intended to destroy for a thousand years to come all those values that are the meaning and pride of Western civilization. Only the combined force of the United Nations was able to prevent the accomplishment of this end.

It should be obvious, then, that the security of states in international society has a very close relationship to the organization of power. The primary characteristic of the world society of today is the independence of the sovereign state, a unit which recognizes no superior authority in the conduct of its relations with other states. Although international institutions are set up to deal with particular phases of the problems which states must solve, and although nations recognize a body of rules governing their conduct toward each other, it still remains true that the final responsibility for the security of each individual state rests upon itself alone.

As a social organization, the state is distinguished from all others by its clearly defined territorial base extending over a definitely circum-

scribed area. It exercises supreme authority over a particular section of the globe and its activities are directly dependent on the physical characteristics of its territorial base. Indeed, its existence as a state is so intimately connected with the undisputed possession of a special piece of land that any encroachment on that territory by another state threatens its very life. Security must, therefore, be understood in terms of the integrity of control over the land. Furthermore, the physical characteristics of the territory will influence directly the manner in which that security is maintained because power is determined to a great extent by geography and natural resources. When dealing with the problem of safety and independence, the nation has to act on the basis of the strength it can mobilize, either within its own territory or through its allies and protectors.

Alternative Roads to Peace

The swift development in the past hundred years of the instruments of power, together with the expansion of the vital interests of states to include the whole world, has made many people believe that some other method than the use of force must be found to protect the security of states. To this end, some suggest that we must dispense with power politics entirely in international relations and rely on co-operation and mutual forbearance. Unfortunately, this solution ignores certain basic facts about the political organization of the world. One is that states have very different sets of values which they each regard as fundamental and, with all the good will in the world, they will not avoid conflict over the application of these values; nor will they refuse to apply pressure for the attainment of what they consider justifiable ends. Each state will feel that it must be able to protect, by force if necessary, the values it regards as vital. Another fact which cannot be overlooked is that the nations of the world are at different stages of development and display varying rates of growth. At any given time, there are always some that are satisfied and others that are dissatisfied with the political and territorial *status quo*. When such dissatisfaction reaches a certain point, efforts will be made to change the situation by force. A spirit of co-operation and forbearance is no defense against a determined seeker after change.

Certain writers, taking into consideration just these factors that militate against the workability of any system which ignores power completely, recognize frankly the necessity of power in the successful ordering of international society. They advocate that a monopoly of force in the world community be bestowed upon a super-state. The individual states would cease to have armaments and all questions of security would be handled by a world police force organized and functioning in the same manner as a national army and navy. Undoubtedly, such a solution would provide a complete answer to the problem. It does, however, presuppose the existence of a common set of values recognized by all the peoples of the world. It is based on the major premise that there exists a world community comparable to the national community and having enough cohesion to support the actions of a police force. It is obvious that we are a long way from achieving such an international society. Any blueprint for a world state is, therefore, concerned with the far-distant future and cannot provide practicable guides for the formation of policies to be applied to the post-war settlement.

There is a third alternative proposal for the organization of peace that recognizes the existence of power and yet avoids the wishful thinking of the proponents of the world state. A system of collective security, it is urged, will provide the force necessary to guarantee the safety of individual states from aggression. Each state will retain its own armed forces but will accept an obligation to fight in the defense of any other state whose security is threatened. On the basis of such a collective obligation, a feeling of security will eventually be created and states will be willing to reduce their armaments to a minimum. Such a system, however, must stand or fall on the willingness of each state to go to war because of a written obligation to do so. Even though most states may

sincerely desire to observe such obligations, the fact remains that any general written commitment is susceptible of varying interpretations as it is applied to new situations. Nations will refuse to believe that individual interests will henceforth cease to influence the interpretation of collective obligations. Certainly those states which have the strength to provide for their own security will not give up that right and rely on nothing more than the paper promises of others to defend them. Any workable system of collective security must rely on the support of the great powers which alone have the means to enforce it. This they will do in terms of their own security and independence. The protective guarantees extended to the smaller states will thus depend less on the existence of an abstract "collective" obligation than on the separate calculation by each of the great powers of its own national interest.

Geography and Foreign Policy

If, then, the security of a nation depends ultimately on the strength which it can command for its defense, the political strategy whose objective is to guarantee security must maintain the state's power in peace time. In order to do this effectively it must deal with those factors which determine power. Since the military strategist must also use power for his special ends, there is a concrete relationship between political strategy for security in peace time and military strategy for victory in war time. Although the special objective in war is the complete destruction of a particular enemy, in both peace and war it is the independence and safety of the state. Both strategies must deal with the same power factors. War and peace are thus closely interwoven and the kind of thought which solves problems in one field has a bearing on similar questions in the other. In both situations, we must deal with the state as a territorial unit whose primary geographical characteristics remain the same.

It is easy to realize in what way the physical nature of the battlefield together with the available resources in men and matériel are of vital importance to the calculations of the military mind. It should be equally plain that the nature of the territorial base of a state exerts a manifold influence on its foreign policy in peace time. Size affects its relative strength and natural resources influence population density and economic structure, which are in themselves factors in the formulation of policy. Location with reference to the Equator and to oceans and land masses determines nearness to centers of power, areas of conflict, and established routes of communication, and location with reference to immediate neighbors defines position in regard to potential enemies, thereby determining the basic problems of territorial security. The significance of these factors, however, cannot be evaluated without a consideration of the modifying effects of topography and climate. Topography affects strength because of its influence on unity and internal coherence. Climate, affecting transportation and setting limits to the possibility of agricultural production, conditions the economic structure of the state, and thus, indirectly but unmistakably, its foreign policy.

It should be possible, then, to consider the security problems of a country in geographic terms in such a way that the conclusions can be of direct and immediate use to the statesmen whose duty it is to formulate foreign policy. Just such an analysis is implied by the term geopolitics.

There exists a confusion in the minds of most people today about the nature of geopolitics. This is due largely to the fact that the term has been used to refer to at least three different categories of thought. It has been adopted by some students, particularly those of the German school, as the framework for a whole philosophy of history. They make it into a theory about the nature of the state and use it as a doctrine supporting the need and desirability of territorial expansion. Secondly, it has been used as a synonym for political geography, in which case it becomes merely a branch of the general science of geography describing the structure of individual states, and the world in terms of its political subdivisions.

Finally the term may be applied to the planning of the security policy of a country in terms

of its geographic factors. It then answers the question: Given a particular geographical situation, what is the best policy to follow to achieve security? The end in view is the peace and independence of the state, not its territorial expansion or the aggrandizement of its power at the expense of the rest of the world. Geopolitics recognizes that the problem of peace inevitably involves the territorial relations of states in a geographical sense. Its method of analysis may thus be compared to the kind of thought which precedes the formulation and execution of policy in any field of action involving a choice of location and an awareness of the qualities of space relations. We think in geopolitical terms when we cross a street, select the site for a shop or a factory, designate a hill or a tree for an observation post, or choose the location for an airfield. Such geographic thought is an essential part of all urban and regional planning and must also precede the preparation for a military campaign whether it be on the scale of a cavalry reconnaissance across the hilltops or of a continental invasion in global warfare. The specific field of geopolitics is, however, the field of foreign policy, and its particular type of analysis uses geographic factors to help in the formulation of adequate policies for the achievement of certain justifiable ends.

The nature of an analysis of this kind will, of course, depend on the nature of the policy to be decided upon, the characteristics of the problem posed. If we are deciding where to locate a factory, we must have a knowledge of the effect of distance to markets and raw materials on the costs of production, of the availability of power, and of the location of the labor market. If we are choosing the site for an airfield or an artillery observation post in war time, we must deal with the length and nature of the lines of communication and supply as well as the characteristics of the terrain involved. If, on the other hand, we are concerned with the problem of deciding on a policy for maintaining the safety of the state, we must think in terms of the location of the national territory in the world, its size and resources, and the distribution of the territory and power of other countries.

The nature of the problem to be considered will define not only the nature of the geographic analysis but also the size of the region to be analyzed. The basis of modern city planning is urban geography; of regional planning, regional geography; of national planning, national geography. The basis of world planning for peace must be world geography. In a period of global warfare, military strategy must consider the whole world as a unit and must think of all fronts in their relations with each other. Because of the tremendous developments in the field of military action during the past two centuries, the modern commander must know many more things about the condition of the enemy than were necessary in the eighteenth century. Then, a knowledge of the strength of the military establishment and the nature of the terrain of the probable battlefields was sufficient. Now, the strategist must have information on all the elements that affect the strength of the country as a whole, for economic and psychological warfare have put the whole nation on the battlefield. The statesman is likewise working in a world which is a single unit of forces and his understanding of the factors which will influence the peace of his country must extend to include the whole surface of the earth and all the elements that affect the strength and weakness of states. In the search for global peace and security, the unit area for analysis must be co-extensive with the surface of the earth.

It must also be remembered that special "geopolitical" regions are not geographic regions defined by a fixed and permanent topography but areas determined on the one hand by geography and on the other hand by dynamic shifts in the centers of power. This means that the struggle for power itself will bring certain areas into prominence, push others into temporary oblivion, and lead to the expansion or contraction of specific areas under consideration. In other words, the primary characteristic of any geopolitical analysis, as distinguished from a purely geographic one, is that it is dealing with a dynamic rather than a static situation. Changing conditions in the political world will affect the conclusions by changing

the importance given at any one time to specific factors. Changing technological conditions will also alter the situation, particularly in the exercise of power, because advances in the speed of communication and in the techniques of industry will necessarily cause variations in the power position of particular countries. Geographic facts will not change but their meaning for foreign policy will.

Since all the objectives of foreign policy are closely interrelated, it must be remembered that no one of them can ever be fully studied by itself without some reference to the others. Likewise, the factors conditioning the formation of policy are also not to be simplified into one all-inclusive generality like geography. They are many; they are permanent and temporary, obvious and hidden; they include, besides geography, population density, the economic structure of the country, the ethnic composition of the people, the form of government, the complexes and pet prejudices of foreign ministers, and the ideals and values held by the people. The geopolitician must use his particular kind of knowledge to clarify policy from one point of view in the same way that the lawyer, economist, or sociologist uses his knowledge to help formulate guides to action.

Geopolitics and Security

The kind of analysis we have been discussing is something completely different from the geographical metaphysics which is so characteristic of the German school of "*Geopolitik.*" Haushofer has managed to give to particular types of frontier a mystical, moral sanctity. Expansion up to such a frontier, whether expressed as a response to the compulsion of the magic concept "space" or in some other form, becomes an action in harmony with divine purposes. Such metaphysical nonsense has no place here. No particular geographic form is ethically better for a country than another form, and no mysterious good for the state, considered as a living organism which must expand and grow strong, can justify the unlimited use of power to achieve such ends. Geographic position and physical power are facts to be reckoned with in the international world and a technique is available for the more effective understanding of these facts. Wherever generalizations are drawn by the geopolitician from them and applied to policy, standards of good and evil must condition their formulation. In any case, the objectives of peace and security for a state and for the world as a whole must inspire the final choice of policy to the exclusion of such aims as expansion and aggrandizement of power.

The fact that certain writers have distorted the meaning of the term geopolitics is no valid reason for condemning its method and material. It is, actually, an appropriate name for a type of analysis and a body of data which are indispensable to the process of reaching intelligent decisions on certain aspects of foreign policy. We have in the past ignored it to our peril and have consequently found our security endangered so seriously that, in 1917 and 1941, war was the only remedy. Throughout the nineteenth century we were able to maintain our safety from outside interference largely because of the almost continuous protection of British sea power which insulated us from the power struggles of the Old World. Since the beginning of the twentieth century, that bulwark has, in effect, ceased to exist but we have failed till now to recognize that, with that protection gone, we are more than ever responsible for our own security. Henceforth, it is clear that we must know how to maintain it on the basis of our own national strength. Only thus is it possible to have a world in which constant recourse to war will be unnecessary. Adequate consideration of the basic power relations of the great states will point out certain ways in which aggression can be effectively neutralized. In this task, geopolitics plays an important and fundamental role.

II. Mapping the World

THE type of analysis we are using to investigate the security problem in foreign policy is based on the conception that one of the main factors conditioning that policy is geography. Hence it is inevitable that one of the tools which we must use is the map. The physical construction of the world must be made clear and factual data concerning it must be made available in the most easily usable form. Just as the military commander planning his campaign must have accurate and complete maps of the terrain on which he is fighting to help him understand the meaning of his position in relation to the enemy and to his own forces, so the statesman who is planning his policy *vis à vis* foreign nations must have maps of the world in which that policy is to be executed. The ideal situation for both general and statesman would be, of course, to have an intimate, firsthand knowledge of the terrain of the battlefield or the foreign country, gained by travel and accurate observation on the spot. Since this is generally impossible, they must resort to the use of maps and globes, the means which the science of geography has developed for recording facts about the surface of the world.

The ideal tool for the study of geographic relationships is the globe. Here, in a three-dimensional form that, with almost complete accuracy, reproduces the shape of the earth itself, we have a picture of the world. Looking at it we are able to measure distances, discuss areas and shapes, and visualize the relationships between land masses without having to correct our readings for distortions. In the classroom and in the study, the globe cannot be improved upon. It is, however, an unwieldy piece of apparatus which is not adapted to the use of books and manuscripts, and it has the additional drawback of allowing a view of only half of the world at one time. The cartographer has, therefore, attempted to provide us with two-dimensional charts of the earth's surface on which we can more easily study its characteristics and observe its content in detail. By projecting onto a flat surface the meridians and parallels which are assumed to divide the sphere of the earth into degrees of latitude and longitude, the map-maker is able to approximate with varying degrees of accuracy the contours of the continents and oceans.

The Problem of Map-Making *

The fact that the earth is considered to be a sphere for all practical purposes means that any point on it has the same location on its surface as any other point. That is, unless we set up a definite system of reference within which directions and positions may be plotted, it is impossible to distinguish one point from any other. Such a system was established by the lines of latitude and longitude originated by the Greeks who early recognized the sphericity of the earth and the location of the fixed points of the poles and the Equator. On the basis of these easily determined reference points, they constructed a grid which we still use today.

It is obvious that such a system of co-ordinates can be drawn in exact proportions only on a three-dimensional solid. Any attempt to transfer the surface of the globe to a plane surface will result in the stretching or contraction of the true rela-

* The material on cartography in this chapter is based on *General Cartography* by Erwin Raisz, New York, McGraw-Hill Book Company, 1938, and *Elements of Map Projection* by Charles H. Deetz and Oscar S. Adams, Washington, United States Government Printing Office, 1938.

tionships of distance, direction, shape, and area. It is the task of the mathematical geographer to devise compromises by which the errors and distortions which can never be completely avoided may be made least harmful. This is a highly technical process which results in the production of a variety of so-called projections. The drawing of even the simplest maps depends on the correct use of mathematical formulae of varying complexity which are designed to eliminate distortions of a particular type such as distance, direction, shape, or area, or to equalize the errors by distributing them in various directions. Although it is unnecessary for any but the professional cartographer to know the exact methods by which the various projections are drawn, it is indispensable that anyone who is trying to think in terms of the geographical facts which condition the course and conduct of world relationships should have a general understanding of the tools which he must use.

The effective use of maps in the analysis of geopolitical factors is dependent on a recognition of the fact that any flat map of the earth's surface contains inevitable errors in scale and proportion. When only small sections of the world are being considered, the distortion is so minute as to make little difference to the conclusions which are drawn from them. When, however, the field being dealt with is the whole surface of the earth, the impression of conditions and relationships between large areas will vary considerably according to the particular projection used.

On certain world maps, the areas of the various land masses are quite different from what they actually are on the globe and the use of such a map for the accurate representation of the distribution of natural items such as vegetation, minerals, or population will not be possible. Other projections, while they do reproduce areas accurately, vary widely in the scale of distances applicable to different sections of the map. That is, the relation of inches to miles which prevails near the center of the projection does not apply to the peripheral regions and it is impossible to compare distances accurately. It will be obvious, then, that the geographer, the political scientist, or the geopolitician who is using maps as a tool in the process of analyzing the conditions in which society is acting must make it clear within what particular frame of reference he is working and with what justification he chooses a particular type of map for his work.

Since any geopolitical study today deals with states in a period when events in one region of the world affect the power relations in far distant lands, the unit area for this type of analysis must be the entire earth's surface. Modern states can preserve their power position only if they do their strategic and political thinking in war and peace on a global scale. The basis of all sound geopolitical analysis is, therefore, a world map expressive of the location on the earth of the state or states concerned. Other areas will derive their political and strategic significance from their position with reference to this state. A survey of the map projections that are most generally used today will help to show on what basis the world maps used in this study have been chosen.

Types of Map Projection

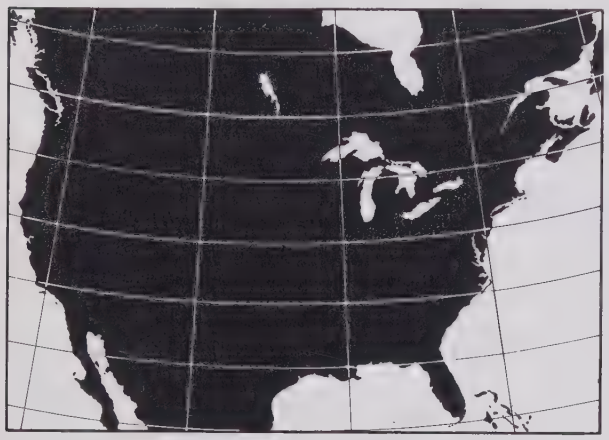
There are three general classes of grids which may be conveniently identified in terms of the manner in which, theoretically, the globe is projected onto the surface of a cone, a plane, or a cylinder. Not every projection will fit into this classification and, actually, most of them were not developed in this simple manner. The use of the geometric figures, however, serves to make the construction of the various grids in general use more easily understood.

a. *Conic Projections*

When a cone is wrapped around the earth so that it touches the surface along one parallel, called the tangent parallel, the meridians and parallels can be presumed to be projected from the globe onto the cone which can then be opened out to present a flat map (Map 1). The parallels will be represented by concentric circles and the meridians will radiate out from a central point

which is the pole. Such a map would be accurate in scale at the tangent parallel, but would be more and more inaccurate the farther the map was extended beyond that line. So great, indeed, would be the distortion north and south of the standard parallel that it would be impossible to draw the whole world on the projection.

Mathematical variations in the construction of this grid do permit the use of two tangent parallels



MAP 1. CONIC PROJECTION

so that we are given two areas of accuracy. It is also possible to vary the spaces between the parallels so that any given part of the chart will bear the same relation to the area it represents as the whole map bears to the whole area. This property of equal-area representation is an important quality of many different projections which are used when it is necessary to plot accurately the distribution of products in different countries. A further variation of the conic group is possible which will space the concentric parallels in such a manner that every small quadrangle on the chart will have the same proportions as the corresponding section on the globe. This quality of conformality, which means that the shape of small areas is correct, is also characteristic of other projections and makes them extremely useful for navigators and engineers. Various kinds of special equal-area and conformal maps have been developed and would have to be considered in any complete exposition of the field of cartography. In this brief summary, we can only mention their existence.

It is clear, however, that none of the conic projections is adapted for use in world maps. They are excellent for the mapping of individual countries, but none of them is adaptable for presenting the whole face of the earth on a continuous sheet and they can therefore be of little direct use in geopolitical studies.

b. *Azimuthal Projections*

The recent emphasis on global geography and particularly on "maps for the air world" has brought one particular group of projections to the attention of the public. This is the type known as "azimuthal" or "zenithal" and may be thought of as developed by projecting the surface of the globe upon a plane from some eye point, which is presumed to be either within the globe or at some specific spot outside it. The main reason for their popularity today is that they have the quality of making all great circles which pass through the center of the projection appear on the chart as straight lines. All points on the globe equally distant from the center of the projection are represented as equally distant on these maps.

Since air routes can often follow great circle courses on the globe and are largely concerned with the shortest distance between two points, the value of this class of charts is evident. Their limitations are, however, great when the real factors of global politics are considered. Air line distances are not the sole determining factor either in war or in peace. Location of states with relation to other states as defined by land and sea transportation is still of more vital concern to the well-being and power of a country. It must also be noted that these projections are limited to the mapping of less than a hemisphere with any degree of accuracy. Indeed, three of the class, the gnomonic, orthographic, and stereographic, are never able to show a complete sphere. It is thus difficult to get a clear picture of all the land masses at one time. In an age of global politics, this is definitely a drawback.

Theoretically, the network of meridians and

parallels in the azimuthal projections is developed by projecting the surface of the globe upon a plane from some eye point considered to be either within the globe, on its surface, or at some point outside it. The so-called gnomonic projection (Map 2) presumes the eye point to be at the

MAP 2. GNOMONIC PROJECTION

center of the globe and all great circles are thus drawn as straight lines on a plane which is assumed to touch the globe at the selected central point of the map. Here, any straight line drawn between two points represents a great circle and is thus the shortest route between the points. The grid can therefore be of great assistance in the study of air routes, but its usefulness for a general geopolitical analysis of the world is limited because of the great distortion near the boundaries of the map and because it can only be used to plot an area less than a hemisphere in extent.

The most visual of all projections is the orthographic (Map 3) which is really a picture of the globe taken from a point situated an infinite distance away so that a whole hemisphere can be shown. The parallels and meridians are ellipses except when the pole is at the center, in which case the meridians are straight lines, or when the center is a point on the Equator, in which case the parallels become straight lines. The projection is neither equal-area nor conformal and the distortion at the peripheries is large. Because of these great variations in scale, the grid cannot be used for very exact work. Its main value is in giving people a general impression of the surface of the earth on one hemisphere.

The stereographic projection is much like the orthographic in appearance and, like it, is limited to the portrayal of a hemisphere. It is developed by presuming that the eye is at a point on the surface of the globe looking directly through it to the opposite side which is the center of the projec-

MAP 3. ORTHOGRAPHIC PROJECTION

MAP 4. AZIMUTHAL EQUIDISTANT PROJECTION

tion. The meridians and parallels are thus closer together near the center rather than farther apart as is the case on the orthographic. The projection is conformal but the variation in scale between the center and the edge is extremely large.

The most useful of the azimuthal grids for radio and air communications is the azimuthal equidistant projection (Map 4) because correct distances and accurate directions can be measured from the center of the map to any point on the earth and it can be extended to show the whole surface of the globe on one map. It can be drawn with any point in the world as its center and a series could be constructed with all the major cities as centers so that air-line distances from all of them could be accurately measured. The greatest drawback is that the distortion of shape and area is very great beyond the hemisphere line.

MAP 5. SINUSOIDAL PROJECTION

MAP 6. MOLLWEIDE HOMALOGRAPHIC PROJECTION

c. *World Maps with Horizontal Parallels*

The last group to be considered is one in which the grids are usually drawn with horizontal straight lines for the parallels and the east-west relationship is correctly shown. This makes them adaptable for simple, diagrammatic maps even though they involve a certain amount of distortion in the higher latitudes. They can all be easily drawn on a world scale and must thus be considered very helpful in problems of world analysis.

Two of this type, the sinusoidal (Map 5) and the Mollweide homalographic (Map 6) are equal-area projections, which makes them useful for certain types of world distribution problems. They both, however, have decided distortions in the peripheral areas not only in the northern latitudes but also in the east-west margins. The fact which makes them definitely unadaptable for global analyses is that, because they use curved meridians, they are not extensible. This means that it is not possible to extend the map east or west so that the two hemispheres can be presented more than once. In order to get a clear picture of the inter-relations of the large land masses on the earth's surface, it is sometimes very desirable to be able to continue the map in either or both horizontal directions.

The only class of projections which does permit the representation of the world more than once on the same map, is the cylindrical group. These may all be considered to be derived from the projection of the global surface onto a cylinder wrapped around it and then spread out as a plane surface. Since the meridians are equally spaced on the Equator and are vertical lines while the parallels are horizontal lines, the continents can be repeated indefinitely in an easterly or westerly direction.

The most familiar example of this type is the Mercator (Map 7) which has the parallels so placed that the scale along the meridians and parallels is the same for any small area as it is on the globe. This makes it a conformal projection with all compass directions represented as straight lines. Because of the variation in scale toward the North and South Poles, the shape of the large areas in the northern and southern latitudes is distorted. This disadvantage has been overcome to a certain extent in variations of the Mercator grid. Gall's stereographic projection (Map 8) assumes that the cylinder cuts the globe at the parallels of 45° N.

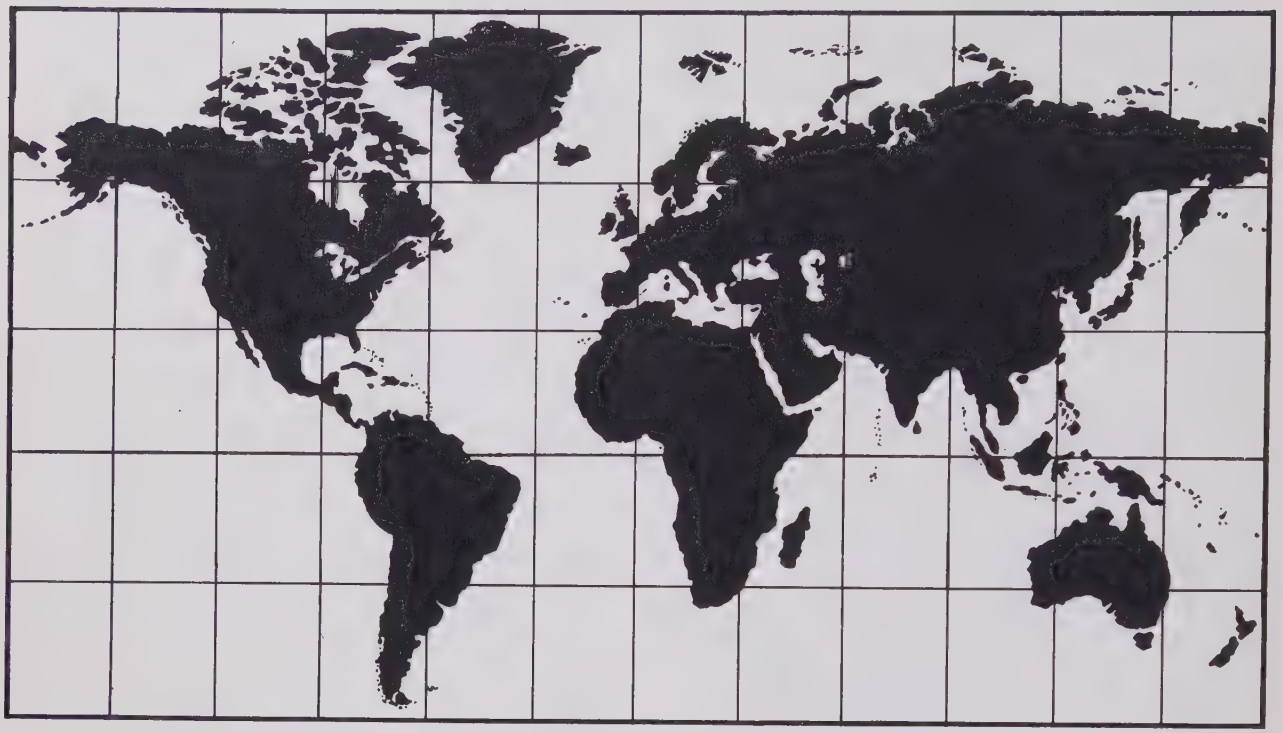
and 45° S. Since only these two parallels are true to scale, the equatorial regions are reduced and the polar regions are exaggerated but the polar distortion is not so great as it is in the Mercator. A very recent modification developed by O. M. Miller of the American Geographical Society (Map 9) is identical with the Mercator projection between the 45° parallels north and south and materially lessens the distortion in the higher latitudes.

Choosing a World Map

The chart which has been used traditionally to indicate the political relationships of the states of the world on a global scale is a cylindrical map, usually on the Mercator projection, with the center along the north-south axis at 0°, that is, the longitude of Greenwich (Map 10). This places Europe in the center with the rest of the world grouped around it. During the age of maritime power when Europe was expanding her control over all the world, such a centralization of the map was entirely correct. It was from Europe that political domination spread over the world and it was the condition of balance or unbalance of forces in Europe that largely determined the power position of states everywhere else.

It was in terms of such a Europe-centered world that the great regions of the earth received their names. The Western Hemisphere, the Near East, the Far East—all these with their connotations in

MAP 7. MERCATOR PROJECTION



MAP 8. GALL'S STEREOGRAPHIC PROJECTION

MAP 9. MILLER PROJECTION

terms of directions are logical only if it is remembered that the frame of reference is a map of the world with Europe in the center. Even though other projections came to be used to correct the distortions of the Mercator, it was still true that the central meridian chosen was almost always in the neighborhood of Greenwich.

So long as the center of world power was in Europe and the principal states struggling for world dominion were European while the rest of the world represented a colonial or quasi-colonial world, this Europe-centered map was entirely satisfactory. With the opening of the twentieth century, however, independent sources of power emerged to challenge her position as sole determinant of world politics. In the Western Hemisphere and in the Far East powerful states became more and more independent of European domination and began to look at the world from their own point of view.

Such a radical alteration in the distribution of power in the world was an adequate basis for the introduction of world maps adapted to the task of telling more accurately the story of world relationships. A cylindrical map with the United States in the center will, today, give a clearer picture of her position in regard to both Europe and the Far East. She is now a continental country, unified by railroads and the Panama Canal, so that both her shores have easy access to both sides of the Eurasian Continent, across the Atlantic and the Pacific Oceans.

MAP 10. TRADITIONAL EUROPE-CENTERED MERCATOR MAP

The present war, however, has introduced a new factor, the airplane, which, in the minds of some,

MAP 11. POLAR-CENTERED AZIMUTHAL EQUIDISTANT MAP

has so completely changed the relationships between the great states and their exercise of power that no cylindrical map can adequately portray the world of today. Our Atlantic and Pacific fronts, it is said, are no longer our most important lines of contact with the Old World. To the north lies a third front which the airplane will dominate and which, in importance to our war and peace strategy, will quickly dwarf all other fronts, if it has not already done so. Since the northern front is the one which brings us closest in terms of air power to the Eurasian centers of power, it is inevitable, so the argument goes, that any accurate map for war strategy must concentrate on that front.

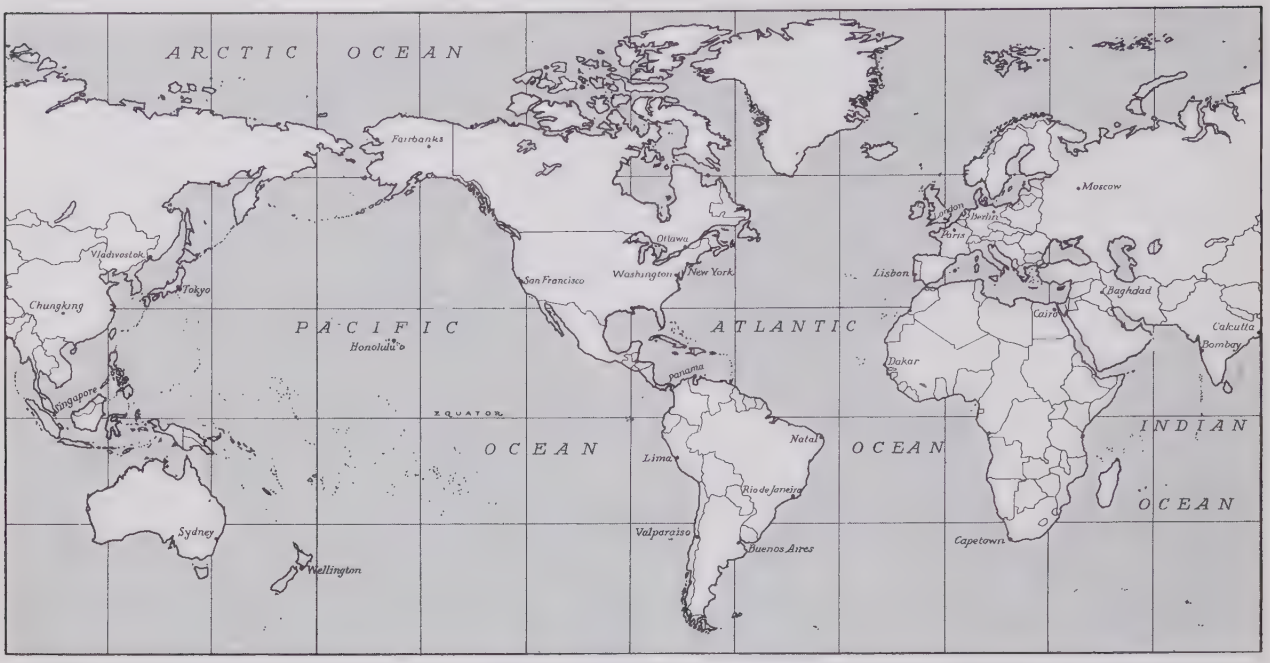
The map which performs this function most adequately is a polar azimuthal equidistant projection (Map 11). Not only does it emphasize and show truthfully the distances, directions, and

relationships across the North Pole, but it also presents more accurately than any other map the land masses of the northern hemisphere from the pole to within 20° of the Equator. It is this area of the globe which is most important both economically and politically and it is, therefore, good to have the necessary distortions grouped in the southern hemisphere which contains the least important territory. This polar azimuthal equidistant projection also indicates the fact of continuity between the land masses around the Arctic Ocean, whereas the traditional cylindrical projections emphasize the oceanic discontinuity and place the Western Hemisphere in a peripheral position which fails to bring out her importance and integral relationship to Eurasia. On such a chart, also, the global nature of the world is emphasized and kept before the eye. To those who are promoting the so-called "new geography," the sins of the Mercator projection are infinite and warrant its complete scrapping by all who presume to deal with global warfare. Since the northern latitudes are of such importance in the world of today, the distortions which this chart makes manifest in these latitudes must be overcome.

The importance of air power can certainly not be denied or even questioned. It is well, nonetheless, to look carefully at the actual meaning of that importance in terms of the geography which conditions all exercise of power. The Atlantic, Pacific, and Polar sections of the maritime front between the Old and the New Worlds have always had and will continue to have a very different geopolitical significance. For three hundred years, the Atlantic has been the great highway between Europe and the Americas, and the Pacific has, for almost the same length of time, offered a wide road to the Far East. The Arctic Ocean, on the other hand, has functioned primarily as a barrier to communication between the two hemispheres. The search for the northwest passage has inspired heroic deeds of exploration and endurance in the polar regions of the globe, but climate and the limits of technology have, until recently, kept that area one of the most insurmountable obstacles to man's conquest of the earth's surface. Next to the Antarctic Continent and the Sahara Desert, the littoral of the Arctic Ocean has remained the most extensive waste land on earth.

The airplane has given us a new weapon in the fight against the inhospitable nature of the north and we are finding it possible to cross the area on long-distance flights that link together tenuously the North American and Eurasian Continents. The near future, however, will scarcely see much of a change in the relative importance of the three maritime zones. The one hundred freighters and thirteen ice-breakers that pushed their way through the cold waters of the Arctic Ocean during the one hundred days of the navigating season of 1940 carried a maximum of 160,000 tons of goods. These ships plus the planes which, now and then, carry important passengers and a few tons of precious freight across the polar regions will not for a long time take the place of the thousands of ships and hundreds of planes that dot the Atlantic and Pacific water and sky. In a fairly normal year of trade, 1937, Atlantic ports of the United States imported 10,461,136 tons and exported 20,456,934 tons of material, while Pacific ports imported 4,075,080 tons and exported 11,746,962 tons. It will be many years before the Arctic lines of communication in the air are able to compete on equal terms with the sea-borne commerce of the Atlantic and Pacific Oceans.

It is true that the shortest distance between a number of cities in the northern hemisphere would follow a great circle across the North Pole. It is also true that, with the approach of stratosphere flying, climatic conditions in that region are not much more severe than in stratosphere flying over other parts of the world. The factor of climate remains, nevertheless, a powerful obstacle to the development of the auxiliary land and sea routes that are necessary to the establishment of large-scale air transport over long distances. To the extent that the former can be developed, they will keep the air routes away from the Pole and near to the open water. It is asking too much of the imagination to expect that the traffic across the Arctic Ocean will ever be more than an infinitesimal fraction of that which will continue to span the oceans either in war or in peace. This being the case, there is no advantage in presenting the posi-



MAP 12. MILLER PROJECTION, CENTERED ON WESTERN HEMISPHERE

tion of the United States in the world on a map which emphasizes the least important section of the maritime front and focuses attention on the largest uninhabited region of the globe.

Asking us to look at polar maps has been a useful way of reminding us that the world is round also in a northerly direction, although some writers have been so delighted with their new discovery that they have talked as if their flat polar maps were somehow rounder than other flat maps. They may have been useful in inspiring our militarists to speculate about new and daring strategic possibilities. But the fact remains that the polar projection is of strictly limited help in understanding the problems of the United States in total war. The significant fact about the position of North America in the world is not that the icy wastes of northern Canada and Russian Siberia are the littoral of a mediterranean sea and that the Mackenzie and the Lena Rivers flow into the same ice-covered ocean. It is the fact that our continent lies between the European and Asiatic power centers of the Old World and is separated from them by oceanic distances.

While the fact must be kept in mind that the earth is round and that the shortest distance between two points on a Mercator map is not a straight line but the arc of a circle, it is more important to remember that the Atlantic and Pacific areas in the middle latitudes are the centers of power and communication. Any geopolitical analysis of the power relationships of the world will, then, be more adequately presented on a cylindrical projection in the style of Mercator. The recently developed Miller projection (Map 12), retaining the Mercator accuracy to within 45° of the Equator and scaling down the distortion in the upper latitudes, lends itself most conveniently to this particular purpose. The use of such a projection will be further justified if it is realized that it in no way interferes with the representation of the importance of the position of such northern areas as Canada, Greenland, Iceland, and Alaska in the communications of both war and peace. The vital routes which connect the Old and New Worlds and which pass through these zones can be indicated with no difficulty.

The basic chart which we are using in this analysis is, therefore, a cylindrical map drawn on the Miller projection. We are thus able to examine graphically the facts which explain the geopolitical position of the United States.

III. The Position of the Western Hemisphere

A CYLINDRICAL map centered on the Western Hemisphere presents us with a picture of the position of the United States in relation to the rest of the world which can best be described as "encirclement." This impression, that the New World is geographically encircled by the land masses of the Old World, can be made even more vivid through a series of maps drawn on an azimuthal equidistant projection. With the charts centered first on St. Louis (Map 13), then on the North Pole (Map 14), and then on a point near Panama (Map 15), the land masses of Eurasia and the related continents of Africa and Australia spread out fan-like to surround the North and South American Continents across the Arctic, the Atlantic, and the Pacific Oceans. The fact that the maps are each centered on a different point in the Western Hemisphere varies the emphasis in the relationships of the land masses because, inevitably, the center of a map appears to the eye of the beholder to be the most important part of it. Nevertheless, the fact of geographic encirclement is made clear.

A closer study of these different global azimuthal maps will show, however, that any country may be considered to be encircled if only the center of the projection is placed in the center of that country. With Tokyo (Map 16), Berlin (Map 17), London (Map 18), or Moscow (Map 19) as the point of reference, maps can be constructed to show that the Japanese, the Germans, the British, or the Russians are surrounded by threatening masses of land. On a globe, every point is surrounded by all other points. It is obvious, therefore, that, if such a conception as encirclement is to have any validity in a study of world relationships, it must be composed of more than mere land masses on a map. Other factors will have to be used to give it sufficient content to clarify the strategic and political position of a state.

The term is perhaps used more frequently on the battlefield than in ordinary political or economic life. The development of a military campaign whose object is to destroy the enemy generally contains an attempt to cut off and encircle either a part or the whole of the opposing group. The defeat of an army completely encircled by superior forces is practically inevitable. The Polish campaign in 1939 and the French campaign in 1940 present a most thorough illustration of this principle, and the Allied campaign in Tunisia has shown that the procedure can be carried out with equal facility and understanding by our own generals. The analogy between the situation on the battlefield and that in the international world is close because, in both cases, a struggle for power is taking place. The general, however, has presumably a much freer hand in the conduct of the struggle and the disposition of his forces because he has a more direct control over the movements of his armies in space. If his equipment and organization are good, he will be able to deploy his men and matériel in the field wherever they will be able to intercept and surround the enemy forces most effectively. The only real restraints on his activities will be the topography of the battlefield and the forces of the enemy.

The statesman, on the other hand, is dealing with a nation of individuals whose interests and desires, both spiritual and physical, must be considered at every point. His territory and its resources and equipment are limited by nature and the accidents of history, and their basic character is fixed. Although the wishes and demands of the people of a country may undergo changes over a long period of years and can, under stress, be

AZIMUTHAL EQUI

MAP 13. CENTERED ON ST. LOUIS

MAP 14. CENTERED ON THE NORTH POLE

MAP 15. CENTERED NEAR THE PANAMA CANAL

DISTANT PROJECTIONS

MAP 16. CENTERED ON TOKYO

MAP 17. CENTERED ON BERLIN

MAP 18. CENTERED ON LONDON

MAP 19. CENTERED ON MOSCOW

adapted to certain unusual conditions, the physical characteristics of the land and its natural resources are fairly permanent. It is only in times of exceptional technological development that these material conditions of national existence are rapidly modified. The statesman, who must determine the policies which his country is to follow, has thus to deal first with a group of factors of a clearly defined nature. If his country has as a next-door neighbor a powerful country and is surrounded on three sides by water, his foreign policy will unquestionably be related in no uncertain terms to that geographic situation. He may attempt to modify the dangers of his position by seeking to draw strength from his access to the sea and by minimizing the power of his neighbor with political alliances. What he must not do, if he can help it, is to allow his neighbor to become so powerful that his own resources both political and natural are insufficient to preserve his security.

Conditioning Factors of Foreign Policy

The foreign policy of a state must be examined, then, primarily in terms of the location of that state in the world. Size and topography together with natural resources will be the most important factors beside location in the determination of the position of the state in international relations. If investigation shows that a particular country is surrounded by others whose natural resources and general power potential are larger than its own, and if the state in question has no topographical features to afford it any protection, encirclement will become a real threat. In attempting to achieve security, the statesman must consider this situation and act so that, whatever possibilities exist of minimizing or preventing the completion of the encirclement, they will be utilized.

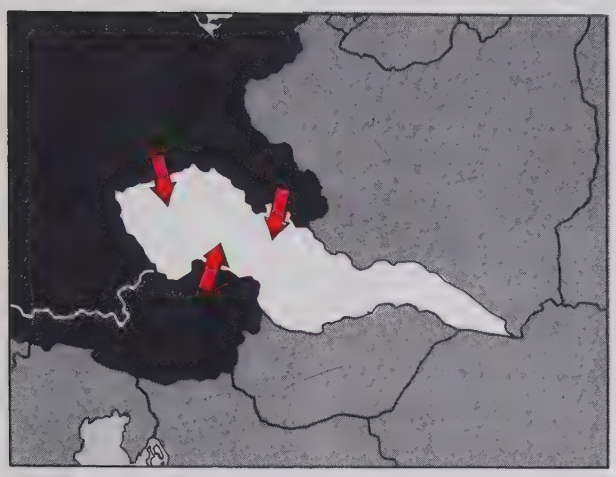
The example of three small states in Western Europe (Map 20) before and during the Second World War are clear indications of the truth of this conclusion. Czechoslovakia, after the absorption of Austria by Germany, was almost completely surrounded by the territory of the German state and the one topographical protection she had, the mountains on her northwestern border, was engulfed. Poland never had any protective mountain ranges and her encirclement by Germany was always threatened by the existence of East Prussia. With the victory of German politics in Czechoslovakia, Poland was engulfed and her defense when war came was impossible. In Yugoslavia, the same situation existed, although in this case the encirclement was not territorial but political. The German state by dominating politically Hungary, Roumania, Bulgaria, and Italy surrounded Yugoslavia with hostile territory and made her surrender inevitable.

The territorial encirclement of a state will have little meaning, however, for its security position unless the economic condition of the surrounding state is strong enough to overbalance the power potential of the encircled unit. It is thus necessary to examine carefully the natural resources and the industrial development of the areas under consideration and compare their availability and strength.

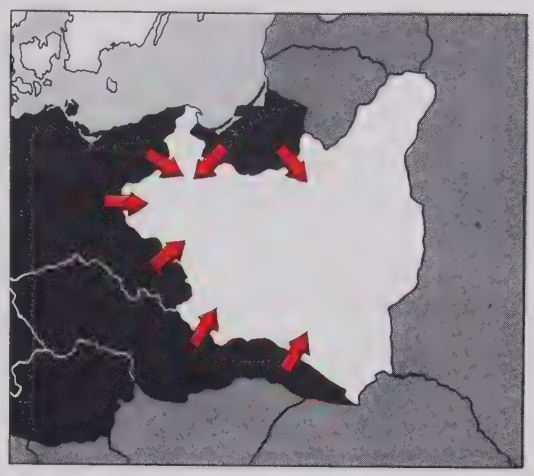
Finally, the situation will be completely defined only if the relative political integration of the two regions is taken into account. It will make a great difference whether the surrounding territory is organized under one unified government, as was the case with Czechoslovakia's encirclement, or whether it consists of a political alliance of two or more powers, as was the case with Yugoslavia. The seriousness of the situation will be easily gauged by the nature and extent of alliances concluded between the states that, territorially, make up the encirclement. In other words, geographic, economic, and political factors are all part of the analysis and it is only when all three are examined that the real meaning of such a position can be grasped.

Location and World Power

We have noted that the geographic location of a state in the world is of basic importance in defining its problems of security. It conditions and influences all other factors for the reason that world location determines the climatic zone and thereby the economic structure, and regional location de-



CZECHOSLOVAKIA IN 1938



POLAND IN 1939

YUGOSLAVIA IN 1941

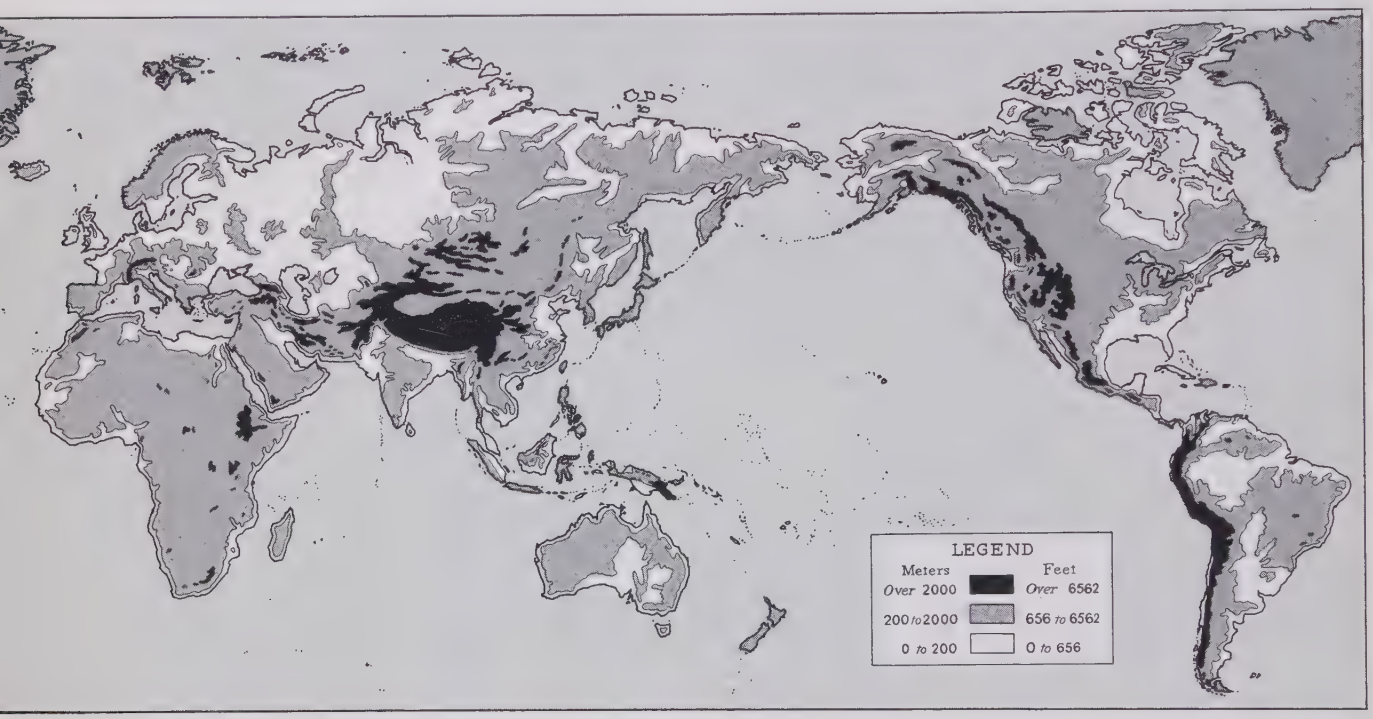
MAP 20. GEOGRAPHIC ENCIRCLEMENT

fines potential enemies and allies and perhaps even the limits of a state's role as a participant in a system of collective security. Supplemented by a description of the topographical nature of the region in which the state is placed, a clear picture of geographical location will provide the framework for an understanding of security problems.

Our preliminary view of the Western Hemisphere has pointed out the fact that it is a great land mass surrounded by three oceans, the Atlantic, the Pacific, and the Arctic. Because of the location of the chain of the Rocky Mountains, the most outstanding topographical feature of North America, the population, resources, and industrial development of the United States are all oriented in an easterly direction toward the Atlantic Ocean (Map 21). The Pacific coast line has few harbors and an economic life that is only to a small degree supplementary to the economy of the Far East. It is cut off from easy communication by land with the major portion of the country. In fact, it was only the building of the Panama Canal that gave really world-wide economic significance to the Pacific coast. This cut through Central America had the effect of turning the whole of the United States around on its axis and giving it direct access to the Pacific Ocean. The port of New York was then nearer to the Asiatic ports north of Shanghai

than the industrial region of Lancashire and the port of Liverpool by way of Suez. The Pacific coast was also brought into much closer contact with the Atlantic region. The whole United States thus has access to the Old World across the oceans, although it still remains true that the real center of power in the Western Hemisphere lies on the Atlantic coast of North America.

The general topographical features of the Old World are more complex. Their influence on the political development of the states of Europe and Asia has been tremendous because they define in such concrete terms the location of the centers of power. From the beginning of history, the mountains and plains of this vast continent have determined the direction of the movements of people and the strength and weakness of states. Its first and most impressive feature is the vast central lowland plain stretching between the Arctic Ocean and the mountains of Turkestan and between the Baltic Sea and Bering Strait. It is bounded along its northern Arctic shore by tundra and ice-covered waters. To the south, west, and east, it is girdled by a great belt of mountains interrupted only in the region of the North German plain. Beyond the great Alpine-Carpathian-Himalayan mountain chain lie narrow strips of coastal lowland which are in turn bounded by a series of marginal seas. This maritime highway begins with the Baltic Sea and sweeps around the whole continent to end in the Sea of Okhotsk. Included in it are the Mediterranean Sea which we shall refer to as the European Mediterranean and the middle sea separating Asia from Australia which can be designated as the Asiatic Mediterranean. Of the off-shore island groups which lie in the ocean surrounding the continent, the most important for our purposes are Great Britain and Japan because they represent centers of political and military power. These two off-shore island groups, together with the off-shore continents of Africa and Australia, complete the picture of the Old World.



MAP 21. WORLD TOPOGRAPHY

The girdle of marginal seas which surrounds the Eurasian Continent has contributed largely to the development of the states of the European and Asiatic coastal plains by providing an easily ac-

cessible and cheap route of communication between them. Overland communication on the continent has, however, encountered serious difficulties with the result that no real integration of the whole land mass has ever been possible. The great central plain of the Old World has always been almost completely cut off from the coastal regions and, until the nineteenth century and the development of railroads, this vast lowland area could not become a unified state with real power. To the north, the icy waters of the Arctic Ocean have barred all communication by sea except through the port of Murmansk which is ice-free all year, and the port of Archangel which is only blocked three or four months by ice. The girdle of mountains surrounding the remaining frontiers is broken in only a few places to afford overland routes to the coast.

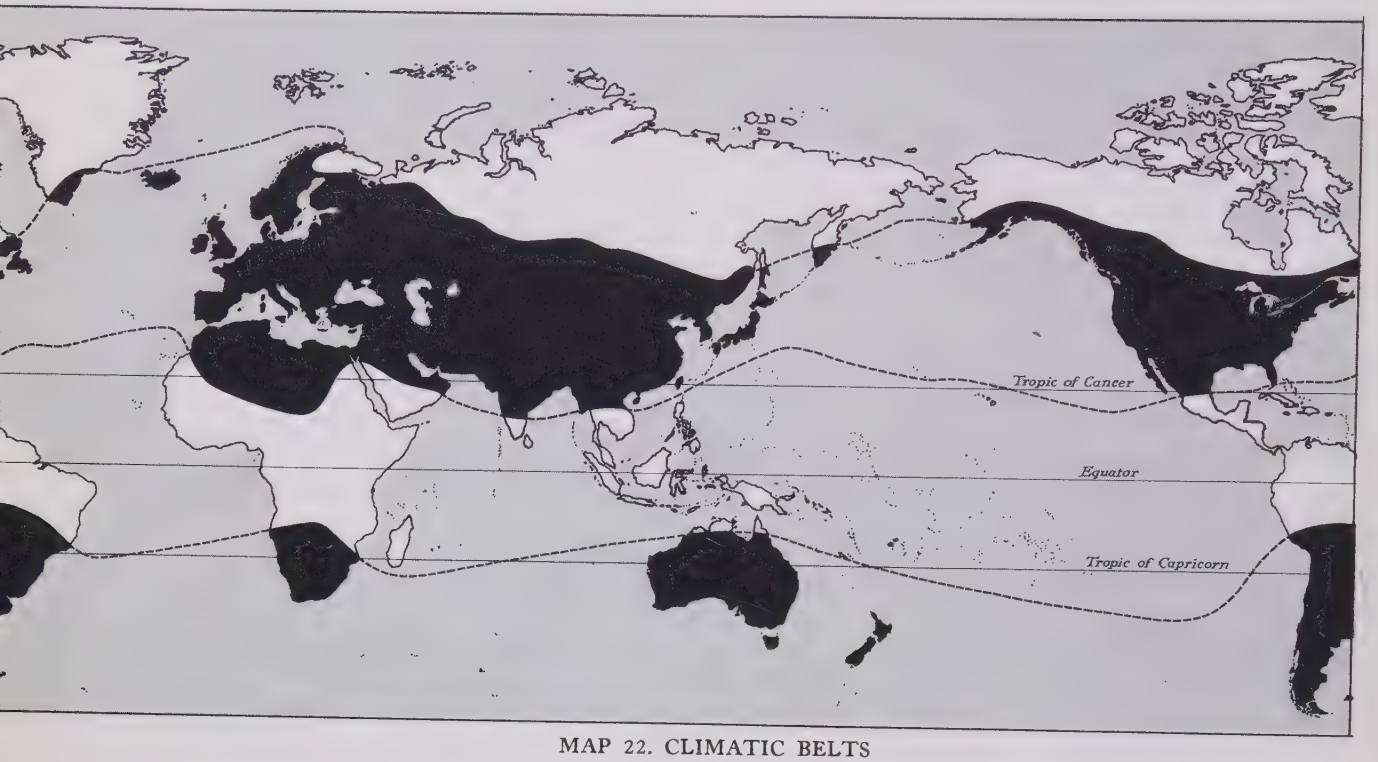
Toward the west and south, nature has provided the most easily traveled passes from the heart of the continent to the ocean. The North German plain continues the central lowland in a broad sweep leading to the North Sea and the ocean by way of the English Channel or around the north of Scotland. To the south, the Black Sea provides a water route leading through the Dardanelles and the Mediterranean to either the Suez Canal, the Red Sea, and the Indian Ocean, or to the Strait of Gibraltar and the Atlantic. The mountains of Persia contain a few narrow and difficult passes giving access to the Persian Gulf and the Indian Ocean while the Khyber Pass affords another tortuous route through the towering mountains of the Hindu Kush to India and her ports on the ocean.

The eastern sections of the mountain barrier become ever more difficult to pierce as the mountains give way to the high desert plateaus of Tibet and Mongolia. Through the Tien Shan Mountains and Sinkiang, the old silk route winds from Russian Turkestan to the Yellow Sea or the East China Sea. It is also possible to travel through the depression between the Tien Shan and the Altai Mountains over the Mongolian plateau to Peking and the Gulf of Chih-Li or north of the Altai ranges and around Lake Baikal into Manchuria. From here, one can go south to Vladivostok and the Sea of Japan or to the Gulf of Chih-Li. One can reach the Sea of Okhotsk by traveling north through the valley of the Amur to Nikolaevsk. Finally, the recent efforts of the Soviet government have made the Lena River and a narrow strip of the Arctic Ocean east to the Bering Strait available for a few ships during the two months of summer.

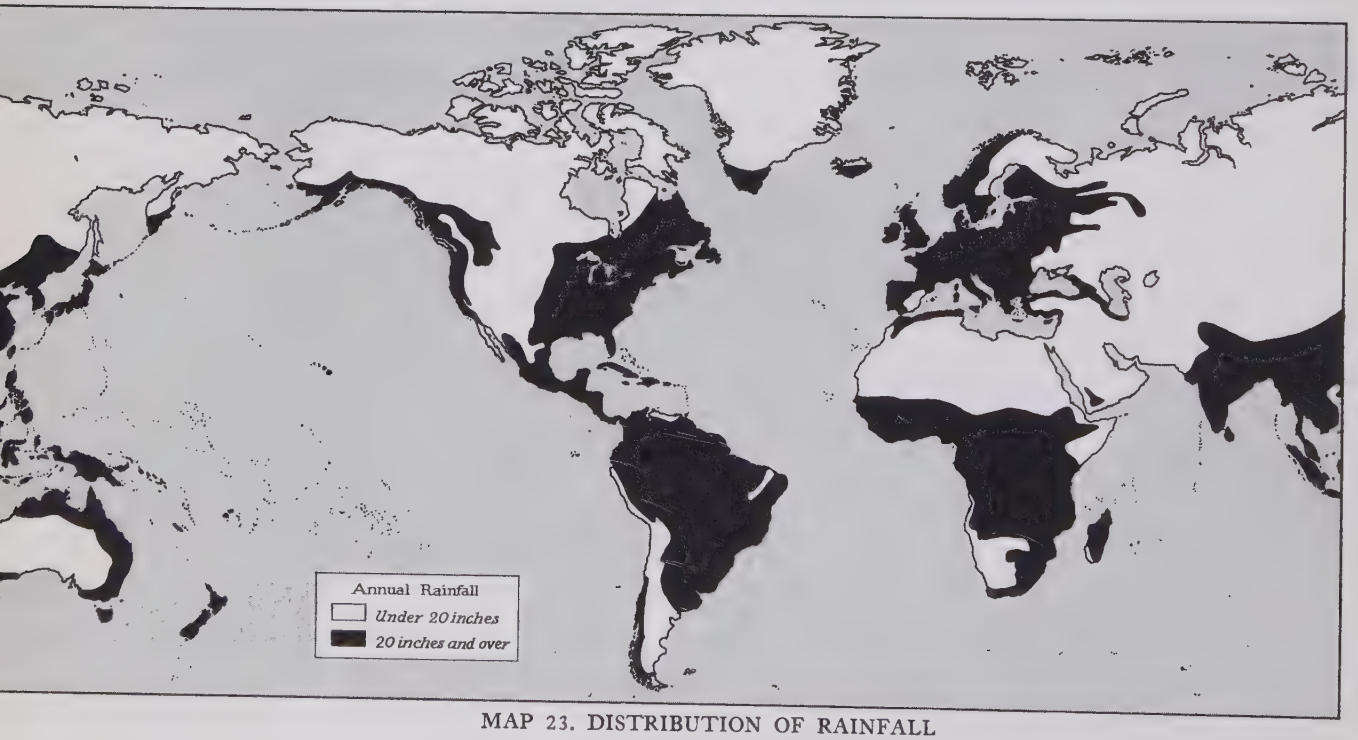
It is clear that the oceans play a most significant role in the economic, cultural, and political relations of the states of the Old World, and that they also determine the relations between the Old and the New Worlds. The most important contacts between the Eastern and Western Hemispheres are conducted in terms of maritime communications. The influence of the United States can be brought to bear on Europe and the Far East only by means of sea-borne traffic and the power of the states of Eurasia can reach us effectively only over the sea. This is true in spite of the growing importance of air power because the preponderant element in the transport of all but the most specialized items will continue to be the ships that sail the oceans.

The Arctic Ocean, since it will, for some time to come, see only a few ships during the short summer season, will continue to be the least important of the three maritime fronts. As between the other two oceanic regions, the Atlantic will probably remain the more important, not only because American culture originated as a transatlantic projection of Western European civilization, but because, for many years, its opposite coast will be economically and politically more significant than the more distant shores of the Pacific. Although it is the smaller of the two oceans, the Atlantic has a much longer United States coast line and a much greater drainage basin. It is toward the Atlantic that most of the economic life of this country flows.

These main elements in the geography of the land masses of the world, it must be repeated, are vital factors in all problems of strategy and security. The political and economic conclusions which determine any final decisions on policy are first of all limited and bounded by the distribution



MAP 22. CLIMATIC BELTS



MAP 23. DISTRIBUTION OF RAINFALL

MAP 24. WHEAT PRODUCTION CENTERS

MAP 25. RICE PRODUCTION CENTERS

of land masses and the nature of their topography. These are the basic, unchanging factors which condition inter-state and inter-continental relations when the peace and security of nations is at stake.

The Distribution of Power Potentials

Beyond the facts of topography, and to a large extent conditioned by them, are the agricultural and industrial resources of the world. Here lies the economic foundation of the role a state plays in world politics. It is only those countries having adequate resources of men and materials which can exercise a direct influence on the peaceful organization of international society.

Certain areas are definitely excluded from consideration as zones of power, either actual or potential, because of the particular climatic conditions which prevail in them (Map 22). In the extreme north, the ground is frozen continually and the possibilities of agrarian production are small. In the extreme tropical areas, leaching of the soil limits the possibility of supporting a large population on local food production. Extremes of temperature in both these regions lessen the attractiveness of the area to the large majority of people, although in some places the effect of temperature is modified by altitude. There remain, then, only two very definite strips of land stretching across the earth in the northern and southern hemispheres which contain regions generally suitable for the growth of large populations and strong states.

This climatic picture can be supplemented by a chart showing the areas which have more than twenty inches of rainfall per year (Map 23). This figure represents, roughly, the minimum amount of rain necessary for the effective production of wheat and rice, the great food staples of Western and Eastern civilizations. The actual distribution of the centers of wheat and rice production (Maps 24, 25) in the world can be seen to coincide fairly accurately with the areas of adequate rainfall. A temperate climate and rainfall adequate to the production of either wheat or rice provide the agricultural basis for the power of any state. A region which lacks these elements in any appreciable degree finds itself doomed to play a secondary role in the power relations of the world.

More directly important to the military and political strength of a nation are the industrial resources which it has on hand and the extent to which these materials can be used to produce the essential tools of modern Western civilization. Since coal and iron represent the basic energy and material requirements of our machines, the distribution of the world resources (Map 26) of these elements and the distribution of their centers of production are all part of our picture. The reserves of these two essential minerals are scattered over the world in a fairly general fashion, although it is clear that the northern hemisphere has been very highly favored over the southern and that the United States has been endowed with a good percentage of the total.

It is, however, not so much the reserves which are important to the power of a state as the actual amount of the material produced. Looking at a map of the world (Map 27) upon which have been inscribed the figures in per cent of world production in 1937 for the large geographic regions in which we are interested, we find that the Eurasian Continent produces about 70 per cent of the coal and lignite, 64 per cent of the iron ore, and 62 per cent of the pig iron, while the Western Hemisphere produces about 30, 36, and 38 per cent respectively. Although the increase in production during the war period has been phenomenal, it is wise to note that the position of the New World is not so overwhelmingly good that we can be completely indifferent to the political and economic integration of Europe and the Far East.

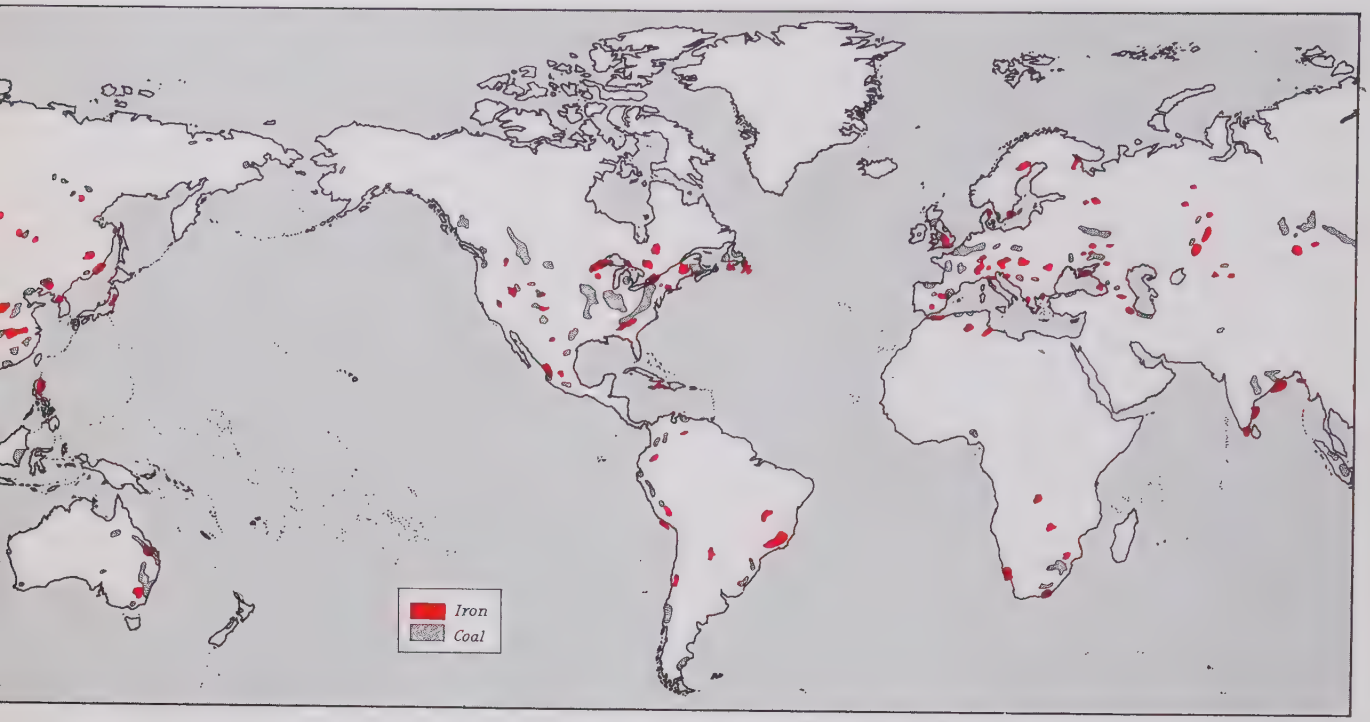
The two energy-producing factors beside coal are oil and water power. The relative amount of potential water power in the various strategic centers of the world is indicated (Map 28). The oil production (Map 29) is, however, perhaps more significant. Its principal areas lie marginal to two of the three great mediterranean seas—the Asiatic and the American. In the European Mediterranean region the oil production centers lie in the Black Sea region just outside the immediate sphere

of influence of the Mediterranean countries. But all three of the areas of great oil production contain relatively few of the other elements that are prerequisite to the building of an industrial society. We are, accordingly, confronted with the interesting situation that a European industrial world depends on an Asiatic-Black Sea oil production; an emerging Japanese-Chinese industrial production depends on an Asiatic Mediterranean; and an American industrial production depends on an American Mediterranean oil supply.

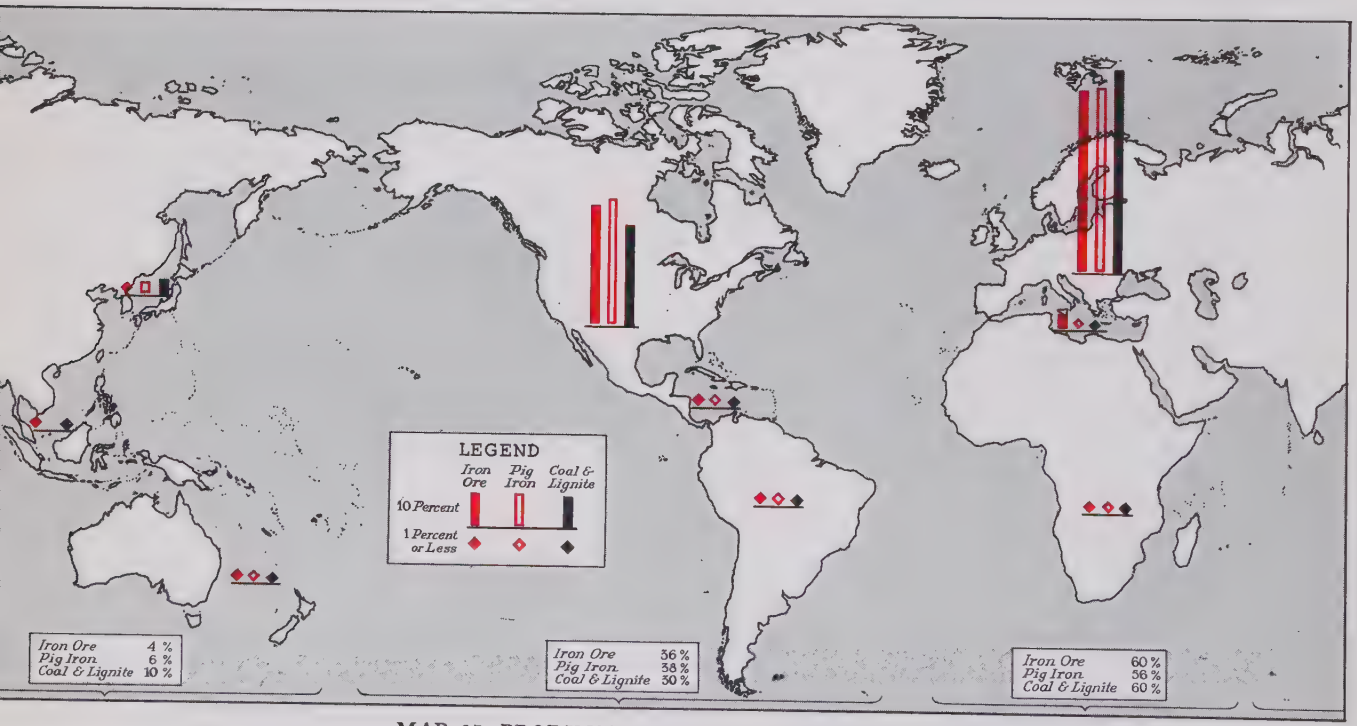
These inanimate factors of agricultural and industrial production are charted and analyzed with comparative ease, but they do not determine entirely the power of a nation. The people who inhabit a country are also a basic element in its strength. Although it is impossible to measure the nature and spirit of a people and plot the results on a map, it is possible to get a certain picture of the relative strength of nations by noting the distribution of population density in the world (Map 30). Particularly in the long-settled areas, the number of people in a region is in itself an indication of power potential in the sense that it is an indication of the ability of that land to sustain life. It is of course true that a large population existing on a low subsistence level will constitute a certain handicap to the exercise of the power of a state. Thus, both China and India are prevented from ranking among the most powerful states partly because their vast populations are forced to live on an extremely low standard. Nevertheless, in general, the population density of a region bears a close relation to its strength. Siberia is practically empty of people while the rimland sections in Europe, India, and China are crowded. History tells us that it is in these latter regions rather than in the former that great civilizations and world-powerful states have existed.

A comparison of the distribution of population density with the rainfall map brings out the fact that there is a distinct correlation between the two. The bulk of the world's population lives in the regions of moderate rainfall where there is a yearly average of not more than 60 inches nor less than 20. It is true that irrigation of dry regions is possible and has been carried out with success in certain countries of the world, particularly in the western states of the United States just east of the Rockies in the area from Montana to New Mexico. Since the water used for irrigation is collected from the scanty precipitation of the region or from the drainage of mountain areas, it is limited and only a fraction of the land available can be irrigated. The southern section of Russia from the Caspian Sea eastward through the lowlands of Russian Turkestan is dry but contains some excellent agricultural land because of the irrigated valleys whose streams are fed by the snows of the mountains of Afghanistan and the high Pamirs. Siberia, with long winters and a short growing-season, is agriculturally rich only along its southern margin and so is probably incapable of supporting a farm population comparable with those of Europe or the Far East.

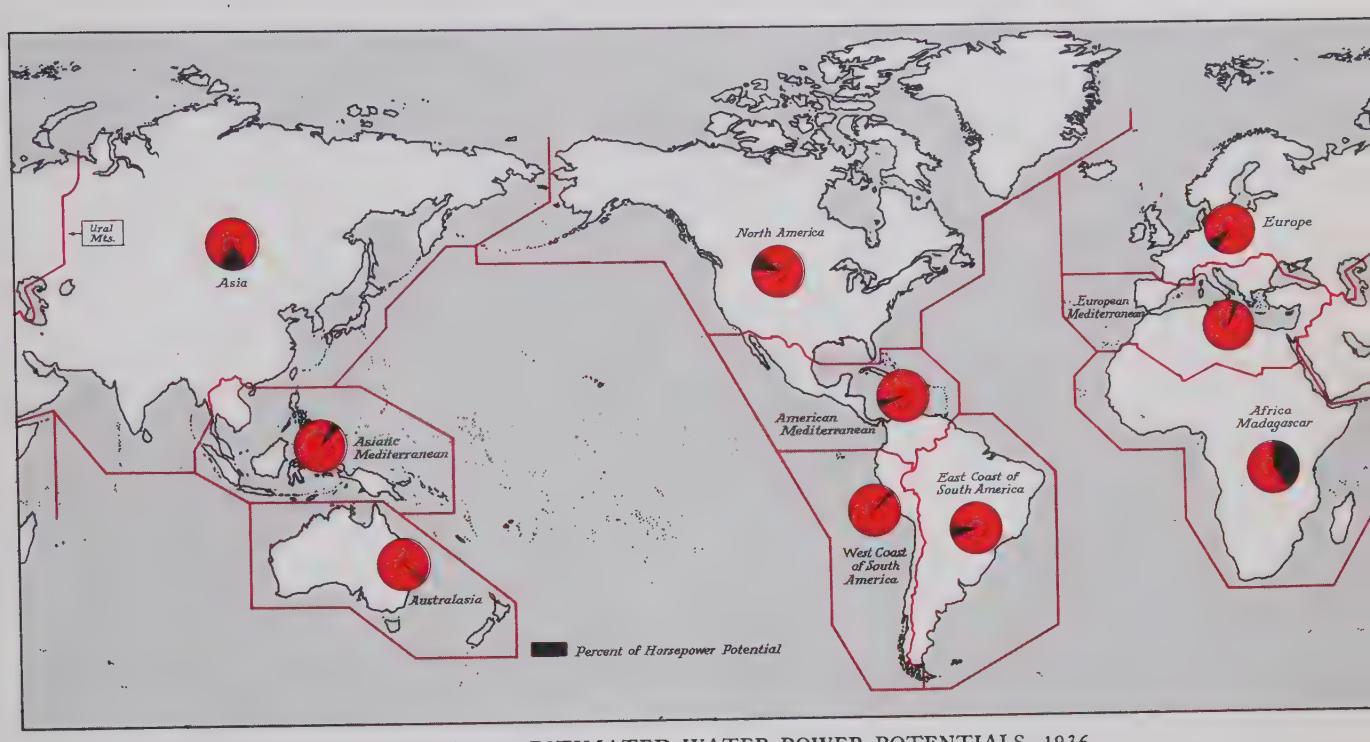
But the factor which, in modern times, is most closely connected with the strength of a state is its industrial production. We have noted the world distribution of coal and iron production which must inevitably form the basis of any industrial structure. It must also be pointed out that there exists a certain relationship between population density and industrial strength. In pre-industrial times, the number of human beings in a state had a direct bearing on its strength because it was their labor which produced most of the energy available. Today, we find the southern and eastern rimland regions of Eurasia from Syria to Manchuria retaining a very direct relation between human energy and the output of work. In both Europe and America, however, machine energy accounts for the greatest proportion of the work done. It is possible, by reducing the amount of work done by both human and machine energy to a common unit, to compare the different parts of the earth in these terms (Map 31). On this basis, it is clear that population density alone is inadequate to indicate the amount of energy produced by a group of people. The extraordinary investment in power machinery in the Western Hemisphere gives it great strength in comparison with the Eastern



MAP 26. COAL AND IRON RESOURCES

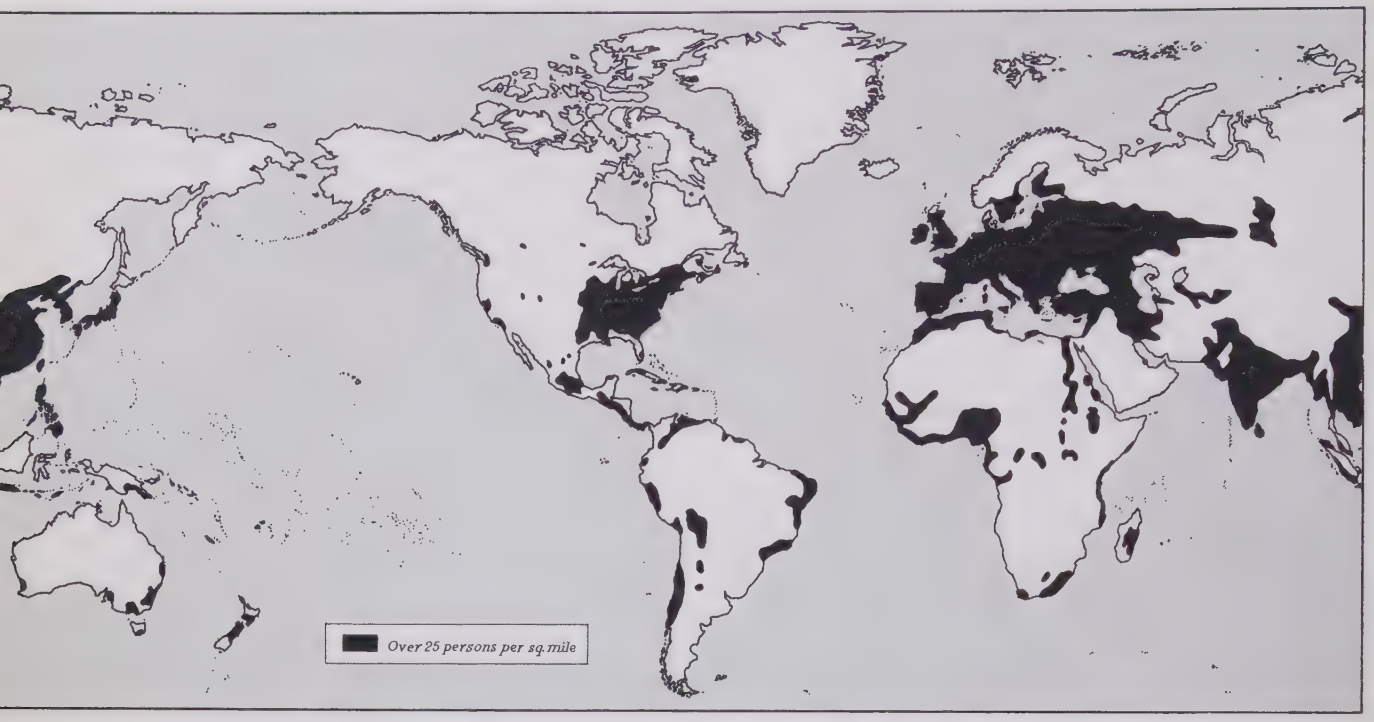


MAP 27. PRODUCTION OF COAL AND IRON IN 1937
(Production figures for all of U.S.S.R. included in European totals)

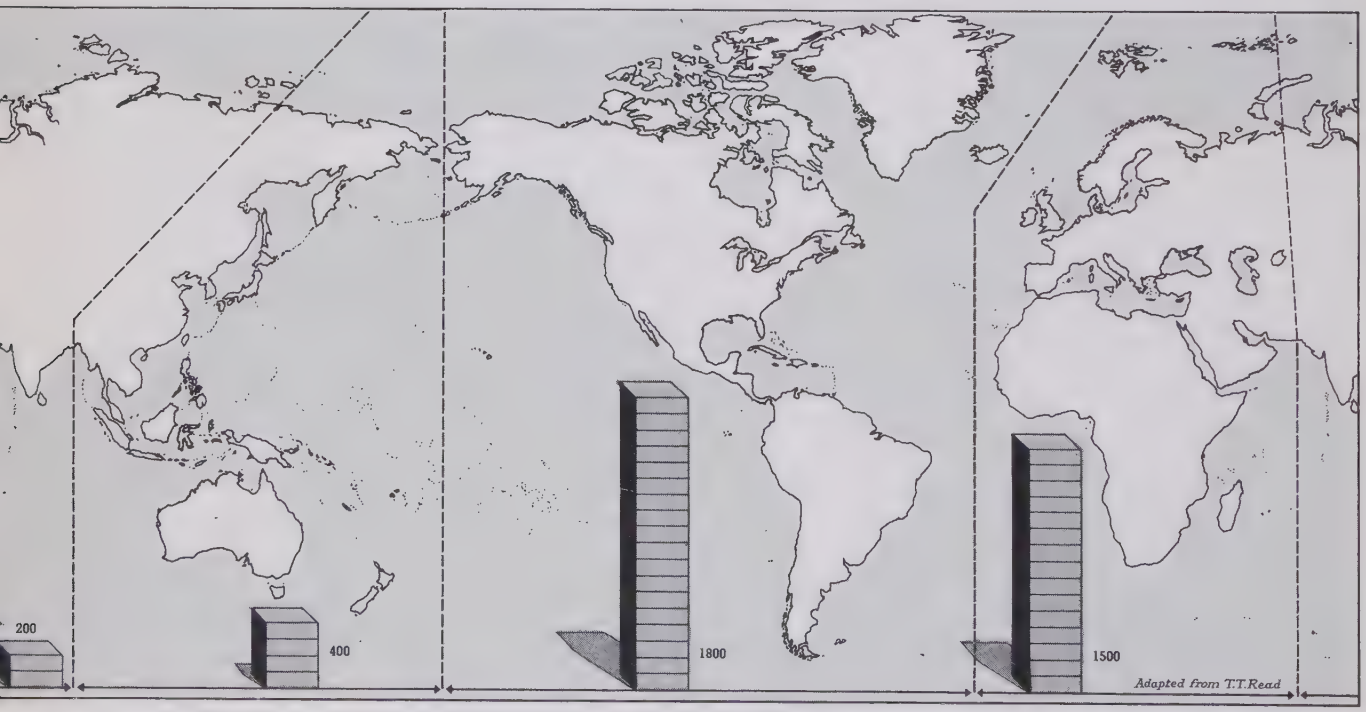


MAP 28. ESTIMATED WATER POWER POTENTIALS, 1936

MAP 29. CENTERS OF OIL PRODUCTION



MAP 30. DISTRIBUTION OF POPULATION DENSITY



MAP 31. DAILY OUTPUT OF WORK, CALCULATED IN MILLIONS OF HORSEPOWER HOURS, 1929

Hemisphere and particularly the Far East, in spite of its smaller total population.

The United States and the World

Summing up the geopolitical position of the United States, we must note that it is surrounded geographically by the Eurasian land mass plus the continents of Africa and Australia (Map 32). In terms of territory, this area is two and one half times the size of the New World; in terms of population, it is ten times the size; and, in terms of energy output, it is approximately equal. To the east of us is located Western Europe which is a center of power defined by both population density and mechanical energy. To the west lies another great power center expressing its force largely in terms of population density.

MAP 32. THE WESTERN HEMISPHERE ENCIRCLED

The political nature of these two areas differs greatly. In Europe, we have a political scatter zone of many independent states which has, however, been threatened with forcible unification at various times in its history. The most recent threat, under the auspices of the Nazi German state, involved plans for a new order stretching from the North Cape to the Cape of Good Hope. At the same time, a similar attempt toward the achievement of domination by one power was being made in the Far East. Here, for centuries, the power of China and that of Russia have maintained a balance on the mainland because they were the only two powers of any importance at all in the region. The expansion of the Japanese Empire from its base on the islands off the coast was conducted with the purpose of achieving complete domination from Bering Strait to Tasmania.

The course of the Second World War brought the German power north to its objective at North Cape and south as far as Dakar, while the Japanese Empire stretched its control from Manchuria along the all-important coastal regions of China and south to New Guinea and the Solomon Islands. The year 1943 saw the growth of United Nations power to the point where the European and Asiatic New Orders were definitely no longer a threat to the rest of the world. Germany was

forced back from Russia and Africa and saw her ally, Italy, conquered. Japan was prevented from expanding her position in China and was forced to retreat from her outposts in the South Seas.

The most significant fact, however, about the situation which confronted us when, at the beginning of 1942, Germany and Japan had achieved a good part of their objectives, was the existence of a political alliance between them. We were then confronted with the possibility of complete encirclement, in which case we might have had to face the unified power of the whole Eurasian land mass. The strength of the power centers of the Eastern Hemisphere would then have been overpowering. It would have been impossible for us to preserve our independence and security. If we are to avoid the conclusion of such an encirclement in the future, our constant concern in peace time must be to see that no nation or alliance of nations is allowed to emerge as a dominating power in either of the two regions of the Old World from which our security could be threatened. It is obvious, therefore, that the internal power relations between the states of the Eurasian Continent will determine to a very great extent the course of our own policies. We must understand the geopolitical forces at work in the Eastern Hemisphere and find out what effect they will have on our own position.

IV. The Political Map of Eurasia

ANY attempt to consider the geopolitical relationships among the states of the Eastern Hemisphere must first emphasize the fact that the total earth's surface has, today, become a single field for the play of political forces. The whole world is now known geographically and changes in the arrangement of forces in one region must affect the alignment of forces in others. The development of sea power has given the political power of the states of Western Europe access to the coasts of the farthest continents. The conditions of power on one continent are inevitably reflected in the distribution of power on another and the foreign policy of any state may be affected by events taking place throughout the world.

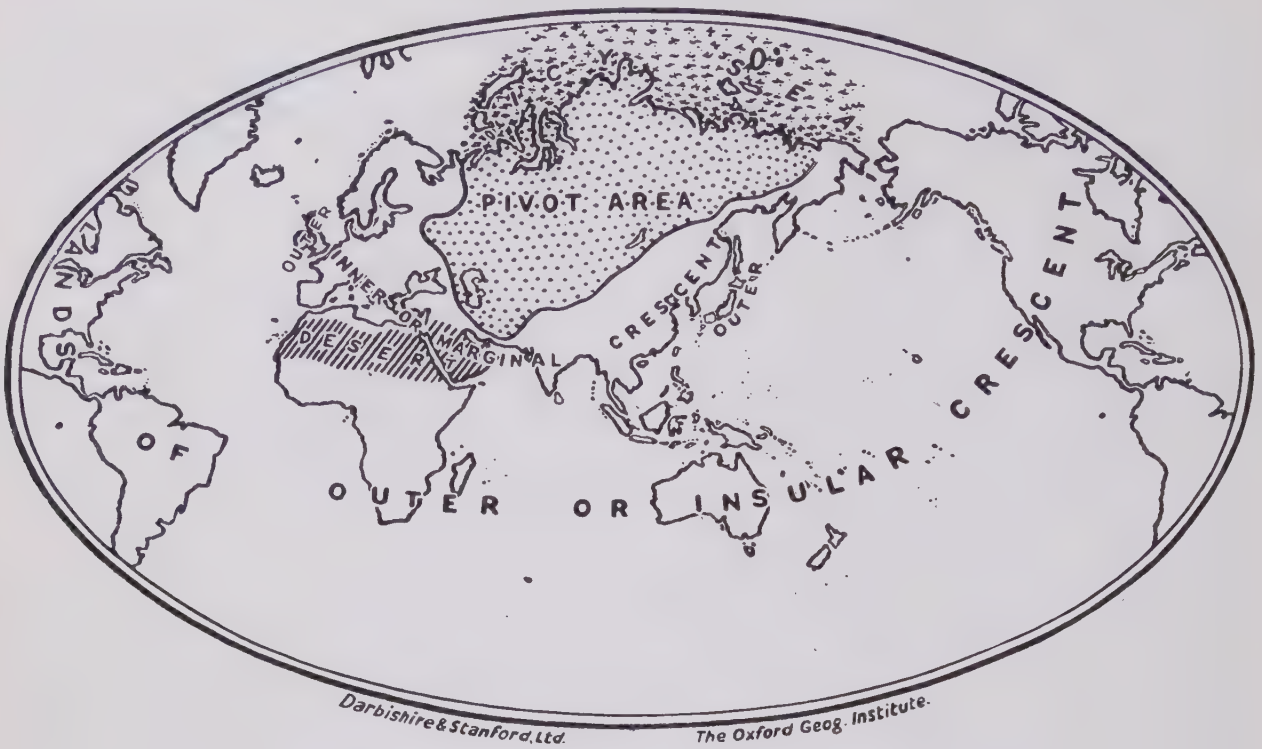
The fundamental fact which is responsible for the conditions of this age of world politics is the development of ocean navigation and the discovery of sea routes to India and America. Maritime mobility is the basis for a new type of geopolitical structure, the overseas empire. Formerly, history had given us the pattern of great land powers based on the control of contiguous land masses such as the Roman, Chinese, and Russian empires. Now the sea has become a great artery of communication and we have been given a new structure of great power and enormous extent. The British, French, and Japanese empires and the sea power of the United States have all contributed to the development of a modern world which is a single field for the interplay of political forces. It is sea power which has made it possible to conceive of the Eurasian Continent as a unit and it is sea power which governs the relationships between the Old and the New Worlds.

This important change in the organization of power was first comprehensively recognized and analyzed in 1890 by Alfred Thayer Mahan in his book *The Influence of Sea Power upon History, 1660-1783*. It was, however, the British geographer Sir Halford Mackinder who, in 1904, first studied in detail the relations between land and sea power on a truly global scale. He used a map centered on Siberia (Map 33) as the basic tool for his analysis and treated Europe, not as the center of the world, but as one of the many peninsulas of the Eurasian land mass. The Western World was confronted with a new view of the face of the earth which its preoccupation with Europe as the center of the universe had obscured. In his best-known work, *Democratic Ideals and Reality*, published in 1919, Mackinder asked again for a global view of world politics and developed more extensively his analysis of the Eurasian Continent.

It is even more necessary today to look at the world as a whole since it is now unified not only by sea but also by air. Our consideration of the position of the Western Hemisphere has already forced us to distort the actual condition of things in the Old World because we have centered our attention on the United States and have divided the Eurasian Continent into two regions, Europe and the Far East, in order to consider their strength in relation to our own country. To see clearly the complete picture of these two areas in relation to each other, it will be well to return to the Siberia-centered map of Mackinder and review in detail the various conceptions he evolved concerning the geopolitical relations on the continent.

Mackinder's World

The Mackinder analysis began with the idea of the heartland. The vast expanse of Siberia was considered as a unit in terms of internal drainage



MAP 33. THE WORLD ACCORDING TO MACKINDER

and access to the sea. This enormous area can be treated as a unit because all its rivers drain into the Arctic Ocean or the inland waters of the Caspian and Aral Seas and no part of it touches the open ocean at any point. The nomadic tribes who have always inhabited this region have been intermittently engaged in trying to reach the sea and have, consequently, exerted a tremendous military pressure on the states that have at various times occupied the coastal regions. This latter territory Mackinder calls the inner crescent and includes within its boundaries all those continental states which had direct access to the sea and thus exercised both maritime and land power. Beyond lie the islands and off-shore continents of the outer crescent while the fringes of the oceans are occupied by the overseas continents of the Western Hemisphere.

From this point of view, the continuity of the land masses of the Western Hemisphere is broken up because the Siberia-centered map shows the Atlantic seaboard of the North and South American Continents facing Europe, while the Pacific seaboard faces the Far East. At the time Mackinder first published his map, in 1904, it was prophetic rather than true to the realities of the day for it was not until the Panama Canal was completed that the full power potential of the United States was made available in the Western Pacific. Today, however, a map with the Eurasian Continent in the center has a definite validity because the Western Hemisphere has a vital interest in and connection with both the European and Far Eastern sections of the Old World.

The constellation of power in the Eastern Hemisphere was defined by Mackinder in terms of the relation between the land power of the heartland and the sea power of Great Britain. Security for the British Empire depended on the preservation of a power equilibrium between the maritime and continental states of the world island. If either of the two gained the ascendancy, the whole continent would be dominated and the pivot area controlled by a single power. With this

vast land mass as a base, a sea power could be developed which could defeat Great Britain with ease. It was, therefore, the task of British foreign policy to prevent any integration of power on the continent of Europe and, particularly, to see that nothing would lead to an effective military alliance between Germany and Russia.

This analysis has a very basic validity in terms of the topography of the Eurasian land mass. As we have already pointed out, there is a definite central lowland plain surrounded by a ring of mountains stretching almost continuously from Scandinavia to the Chukchi Peninsula in Siberia and effectively barring the approach of people from the inland area to the ocean. Beyond this mountain barrier lie the lowland coastal regions of Europe, the Middle East, India, and China. It is unfortunate that the map used by Mackinder gives none of these topographical features which actually form the framework for his conception. Unless it is possible to refer directly to his text, it is difficult to view clearly the implications of his terminology.

The German geopolitician, Haushofer, took over the interpretation of the British geographer and adapted it to his own peculiar needs. A look at the map which he drew to explain his theories will show that he added certain improvements (Map 34). He has indicated the flow of rivers, a detail from which one accustomed to interpret maps can make some estimate of the location of mountain ranges. He has also sketched in certain areas of "political pressure" which illustrate the location of the centers of power Mackinder discussed but failed to locate on his map. Nevertheless, this chart fails also to afford a really adequate basis for discussion because it does not give the really important facts about topography which, in a geopolitical analysis, are indispensable.

We must, therefore, look once more at the topographical map and emphasize again the outlines of the land contours of the Eurasian Continent: the central lowland plain bounded by ice-covered waters to the north and by mountains in a great semicircle to the east, south, and west. Beyond the mountain belt lie the coastland regions consisting of plains separated by mountain spurs which stretch to the sea. In our further consideration of this picture of the earth, we shall have to refer again and again to these regions and it will be well to designate them by specific names (Map 35). The central continental plain can continue to be called the heartland but we may note that it is, in effect, to be equated with the political extent of the Union of Soviet Socialist Republics. Beyond the mountain barrier, the coastland region, which

MAP 34. THE WORLD ACCORDING TO HAUSHOFER

MAP 35. A GEOPOLITICAL MAP OF EURASIA

is called by Mackinder the inner crescent, may more effectively be referred to as the rimland, a name which defines its character accurately. The surrounding string of marginal and mediterranean seas which separates the continent from the oceans constitutes a circumferential maritime highway which links the whole area together in terms of sea power. Beyond lie the off-shore islands and continents of Great Britain, Japan, Africa, and Australia which compose the outer crescent. The term "off-shore" describes so well their essential relationship to the central land mass that we shall use this terminology rather than that of Mackinder. The oceanic belt and the transoceanic New World complete the picture in terms of purely geographical factors.

On the basis of this over-all picture of the Old World, we can now take up in detail the specific regions into which we have divided it and analyze their meaning in terms of power potential and the politics of global security. We must evaluate the role which each zone has in the past played in international society, for only in such a context will it be possible to understand the course of the Second World War and the possibilities of the peace.

The Heartland

The importance of the heartland region was first suggested to Mackinder by his conception of the value of a central position with interior lines of communication made powerful and unified by the development of land transportation to a point where it could begin to compete with sea communication. He also envisaged the transformation of the steppe land from an area of low economic potential to one of high economic potential.

The actual facts of the Russian economy and geography make it not at all clear that the heartland is or will be in the very near future a world center of communication, mobility, and power potential. First of all, the distribution of climate in the world makes it certain that, in the absence of revolutionary developments in agricultural technique, the center of agrarian productivity will re-

main in western Russia rather than in the central Siberian region. A map plotting the cultivated land of the world emphasizes this fact (Map 36). Although the Russian state covers an area far larger than Canada, the United States, or Brazil, the actual extent of arable land is only a very small part of the total area. We must avoid the mistake of identifying all of Russia, or the heartland, as a region of great potential agrarian productivity.

Looking again at the geographic distribution of coal and iron deposits in the world as well as the oil fields and water power, we note that these essential elements of industrial power are located largely west of the Ural Mountains. It is true that there are reserves of coal and iron in Siberia, the exact extent of which are unknown but which undoubtedly constitute a sizeable quantity. Some reports say, also, that there are reserves of oil which can be important if developed. Certainly, the Soviet government has made and will continue to make constant and strenuous endeavors to shift the center of industrial production eastward. So far it has undoubtedly succeeded in developing factories and mines to an extent which has made it possible for Russia to provide herself with a large proportion of her vast war-time needs. The figures on the industrial production of the great area between the Urals and Novosibirsk remain vague and inaccurate and it is difficult to arrive at a complete estimate of the actual and potential importance of this region. It is, nevertheless, certain that it already supplements to an important extent the more fertile region to the west and southwest, although it must be remembered that it is not capable of supporting a large population from the produce of the land.

The railroad, the motor road, and the airplane have certainly created a new mobility in the center of the Eurasian land mass. It cannot, however, be ignored that this area is ringed to the north, east, south, and southwest by some of the greatest obstacles to transportation in the world. Ice and freezing temperatures for a large part of the year, and towering mountains pierced by only a few difficult passes, form its borders. A large part of

MAP 36. THE CULTIVATED LAND OF THE WORLD

the rimland areas which touch the heartland have even poorer transportation facilities. Afghanistan, Tibet, Sinkiang, and Mongolia are regions with no railroads, practically no motor roads, and only a few tortuous caravan routes of the most primitive sort. The law of the inverse ratio of power to distance remains valid within the same political unit as well as between political units. Within the immediate future, Central Asia will undoubtedly remain a region with a fairly low power potential.

The significance of this region was also defined by Mackinder in terms of position. The fact that the core of the heartland lies in the center of the Eurasian land mass gives it the advantage of interior communication with the lands of the inner crescent. It is obvious that the problems of an army which is working along the diameters of a circle of territory will be less difficult than those of forces which have to function along the circumference of that same region. In comparison with the exterior lines of British naval power running from Great Britain through the circumferential highway around the Eurasian rimlands, Russia has interior lines of communication. The transportation lines between Russian Turkestan and Northwest India are certainly interior as compared with the sea route from Southampton to Karachi.

It must be pointed out, however, that interior lines function in terms of two points of reference rather than one. The relations between the center and the circumference may easily be changed if a point on the circumference becomes in turn the center of another circle of communication. Thus, the strategic implications of the position of the heartland in relation to the British Empire have meaning only if the military strength to be applied at the Indian frontier originates in Great Britain. The moment the defense of that frontier or the Persian frontier or the Chinese frontier rests on a locally developed war potential, the whole concept of interior and exterior lines is changed. What is true for India and China if they have to be defended by British sea power is no longer true if their military strength can be made a by-product of their own industrial development. In this case, unless the raw materials of power in the central Asiatic regions of Russia turn out to be great enough to balance those of the rimland regions, Soviet strength will remain west of the Urals and it will not be exerted overpoweringly against the coast lands to the east, south, and southwest.

The Rimland

In Mackinder's conception, the inner crescent of amphibian states surrounding the heartland consists of three sections: the European coast land, the Arabian-Middle Eastern desert land, and the Asiatic monsoon land. The first two regions are clearly defined as geographical areas but the third is a unit only from the special historical point of view represented by Great Britain. To the seaman, the Asiatic monsoon land looks like a single region. The similarities of climate and the easy accessibility of the area to sea power contribute to this impression. This territory is also well protected from the heartland by a string of barriers from the Himalayas and Tibet to the vast desert and mountain regions of Sinkiang and Mongolia. These mountains do not, however, make the monsoon lands behind them a single unit. The ranges of Burma and Indo-China extend down to the sea and interpose a great obstacle to contacts between the two great states. The fact that Buddhism reached China from India by way of Sinkiang and Thailand points to the difficulty of maintaining direct relations. Throughout their history, these two centers of oriental culture have remained fairly isolated from each other and their only contacts have been of a cultural and intellectual nature.

India and the Indian Ocean littoral, then, fall into a different geopolitical category from China, and it is scarcely accurate to classify them together as the Asiatic monsoon lands. The future will probably see the power of the two regions expressed as two distinct units connected only across the lower part of the Indo-China Peninsula by land or air power and around Singapore in terms of sea power. If this is true, then the Asiatic Mediterranean will continue to have great significance

for the political strategy of the independent Asiatic world even as it has been of vital importance in the era of western sea power encirclement.

The rimland of the Eurasian land mass must be viewed as an intermediate region, situated as it is between the heartland and the marginal seas. It functions as a vast buffer zone of conflict between sea power and land power. Looking in both directions, it must function amphibiously and defend itself on land and sea. In the past, it has had to fight against the land power of the heartland and against the sea power of the off-shore islands of Great Britain and Japan. Its amphibious nature lies at the basis of its security problems.

The Off-Shore Continents

Off the southeastern and southwestern shores of the Old World lie the two mediterranean seas beyond which stretch the continents of Australia and Africa. The position of these two off-shore continents is determined largely by the state which controls the European and Asiatic Mediterranean Seas. The Mackinder analysis defines the great desert region of Africa as a continental area inaccessible to sea power and therefore a southern heartland comparable to the northern one. This concept was perhaps of some value in understanding the political history of Africa before the penetration of that continent by the white man. It also had a certain validity in terms of British-Russian opposition as long as the circumferential envelopment of the Old World went by way of the Cape of Good Hope.

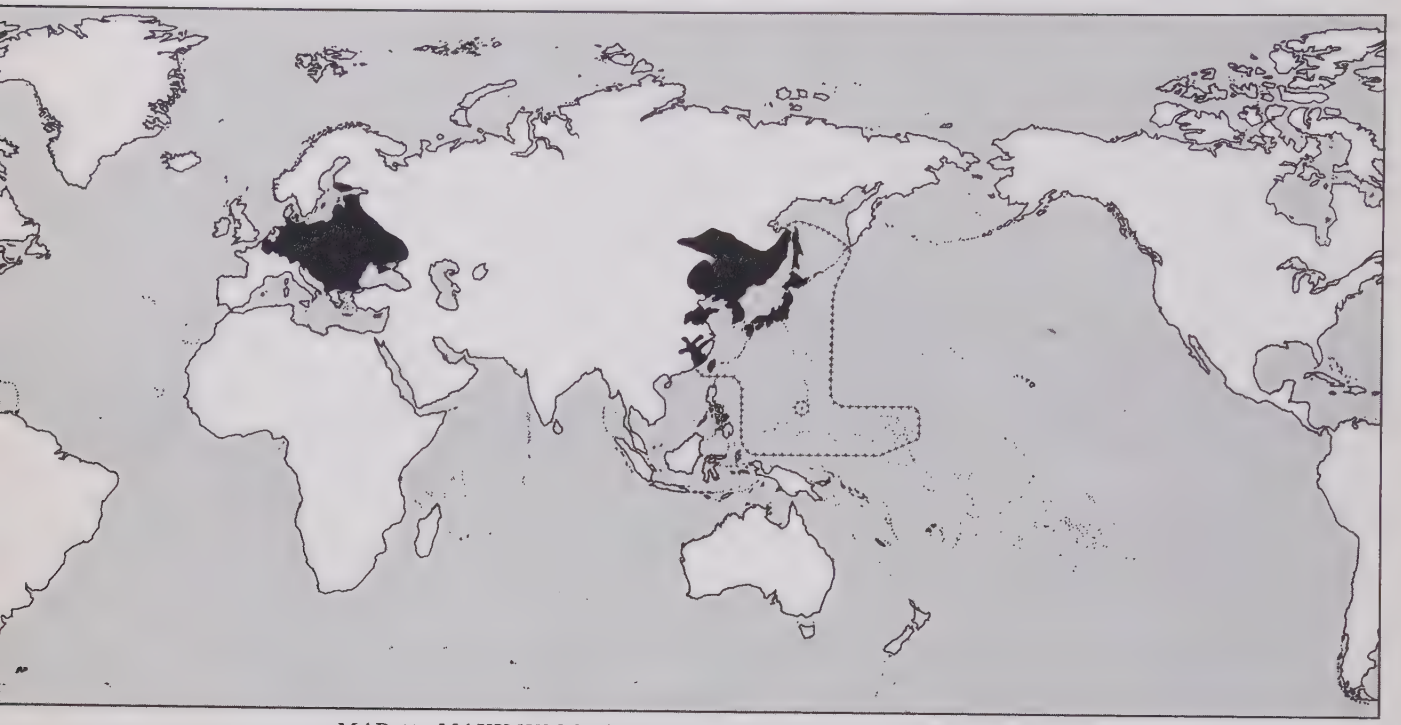
Since the completion of the Suez Canal, this interpretation has lost all practical significance. There is no sense using a term which connotes that an area is impenetrable to sea power when that area has actually been transformed by sea power penetration. It must also be remembered that, notwithstanding any geographic similarity that can be suggested between the two regions, the southern heartland differs in one basic and fundamental respect from the northern heartland. It contains no political power and has no power potential of its own. It is not and never has been the seat of outward pressure toward the crescent. It does not, therefore, function in the total global picture in any manner similar to the northern heartland.

The significance of both these off-shore continents in world politics is limited by climatic conditions which restrict their productive capacity and, consequently, their power potential. The greatest proportion of Africa lies in the tropical zone and is either extremely dry or extremely humid. In either case the continent does not contain, except at the extreme southern tip, the resources necessary for the building up of political units capable of exerting an important influence on the rest of the world. In the same way, the desert regions of Australia are so extensive that the remaining territory is left without the size and resources required for the formation of a power of the first rank.

The Dynamic Pattern of Eurasian Politics

The general pattern of political action on the Eurasian Continent has been defined by Mackinder in terms of the pressure of nomadic peoples in the heartland outward against the states of the rimland. When the nomads who roamed the grasslands of the central lowland were replaced by the organized power of the Russian state, the same pattern was continued. The empire sought access to the sea and found its road blocked in the nineteenth century by British sea power which had expanded across the Eurasian littoral. The British imperial position rested on a maritime encirclement of the Eurasian land mass which was maintained by the predominance of her naval power along the circumferential maritime highway. This position could be threatened by the emergence of a competing sea power on the littoral of the continent, or by the penetration of Russian land power to the coast.

So convinced was Mackinder of the fact that any conflict in Europe must follow the pattern of land power-sea power opposition that he declared, in 1919, that the true character of the war which had just been concluded was not visible until after



MAP 37. MAXIMUM EXPANSION OF GERMANY AND JAPAN, 1914-1921

MAP 38. THE END OF THE FIRST WORLD WAR

Russia had been defeated. British sea power could then be considered to be fighting against a land power which dominated the heartland. This interpretation would seem to be a little hard on the role of France as a land power, and it is strange to ignore the three years of Russian resistance on the eastern front.

Like all good geopolitical analyses, however, the Mackinder study represented a picture of the constellation of forces which existed at a particular time and within a particular frame of reference. It was first elaborated in 1904 before the conclusion of the British-Russian Entente of 1907 and was strongly influenced by the previous century of conflict between Russia and Great Britain. When, in 1919, his book *Democratic Ideals and Reality* was published, the conception of an inevitable historical opposition between Russian land power and British sea power was re-emphasized. The fallacy of this blanket application of a theory of history is seen when we realize that the opposition between these two states has never, in fact, been inevitable. Actually, in the three great world wars of the nineteenth and twentieth centuries, the Napoleonic Wars, the First World War, and the Second World War, the British and Russian empires have lined up together against an intervening rimland power as led by Napoleon, Wilhelm II, and Hitler.

In other words, there has never really been a simple land power-sea power opposition. The historical alignment has always been in terms of some members of the rimland with Great Britain against some members of the rimland with Russia, or Great Britain and Russia together against a dominating rimland power. The Mackinder dictum "Who controls eastern Europe rules the Heartland; who rules the Heartland rules the World Island; and who rules the World Island rules the World" is false. If there is to be a slogan for the power politics of the Old World, it must be "Who controls the rimland rules Eurasia; who rules Eurasia controls the destinies of the world."

MAP 39. MAXIMUM EXPANSION OF GERMANY AND JAPAN, 1931-1942

Already the United States has gone to war

twice within thirty years and the threat to our security each time has been the possibility that the rimland regions of the Eurasian land mass would be dominated by a single power. By the end of 1917, the success of the Germans in the east against Russia, which culminated in the Treaty of Brest-Litovsk of March 3, 1918, made it appear likely that the German bid for supremacy on the Atlantic littoral would be successful (Map 37). At the same time, Japan, though ostensibly an ally of Great Britain and the United States, was also engaged in trying to achieve complete control over the Far East. In January of 1915 she began her campaign by pressing on China the Twenty-One Demands. Later, in 1918, she took part in the Allied invasion of Siberia and pushed her own interests there vigorously. Had she not been countered, she might have come out of the war with complete control over the Asiatic rimland.

The Washington Conference of 1921-22 achieved for us the partial withdrawal of Japan from the extreme claims of the Twenty-One Demands as well as a withdrawal from Siberia and from Shantung. Looking at the Washington treaties rather than the Treaty of Versailles as the end of the First World War, it can be seen that, in winning that particular power struggle, we reduced our opponents to a relatively small area (Map 38). It did not, however, take them long to resume their policies of expansion toward the control of the rimland and its vast power potential. The Second World War represents the continuation of that effort, begun in earnest by the Japanese in 1931 and by the Germans in 1936. At the point of maximum expansion this time, Germany reached indirectly to Dakar and Japan gained control as far as the Torres Strait between New Guinea and Australia (Map 39).

The course of the Second World War has emphasized in no uncertain terms the importance of a power equilibrium in Europe to the peace and well-being of the world. The most recent expression of the heartland concept by Mackinder * has recognized the predominant importance of the rimland and the necessity of British-Russian-United States collaboration to prevent the growth of German power in this area. He has modified his conception slightly by shifting the boundary of the heartland to the Yenisei River and lessening the emphasis on the Central Siberian grassland region. The focus of Soviet power is now located where its actual geographical concentration places it, west of the Urals. The heartland becomes less important than the rimland and it is the co-operation of British, Russian, and United States land and sea power that will control the European littoral and, thereby, the essential power relations of the world.

* H. J. Mackinder, "The Round World," *Foreign Affairs*, July, 1943.

V. The Strategy of Security

THE war that the United Nations are fighting and winning today is, in its physical aspects, a war for the control of the rimland littoral of Europe and Asia. Our objective is to prevent the domination of both these regions by hegemonic powers whose principles and ideals are opposed to the whole course of Western civilization. We know that our independence and the preservation of our democratic and ethical standards depend on the completeness of our defeat of the German and Japanese power which has come so perilously close to victory. We know also that the success of our arms is directly measured by the extent to which we have adapted our use of military power to the demands of total war. The effectiveness of our efforts to make peace will be directly measured by the way in which we learn to use our power to preserve the conditions of security imposed on us by the nature of international society and the geographic location of our country.

We have noted that the exercise of power in peace time is conditioned by the same principles of strategy that determine the successful conduct of operations in war time. The Second World War has forced us to revaluate many of the weapons and tactics which were accepted as fixed under the conditions of our pre-war thinking. The development of blitzkrieg tactics and the tremendous expansion of air warfare have both affected the exercise of power on the battlefield and they have also modified the meaning of the strategic location of the various countries of the world. Such changes influence the strategy of peace as well as that of war. A general view of the characteristics of global warfare may give us guides to action which will prevent a repetition of the recent threat to democratic institutions and at least postpone the recurrence of conditions which might force us into a Third World War to preserve our security.

Global War

Global war, as well as global peace, means that all fronts and all areas are interrelated. No matter how remote they are from each other, success or failure in one will have an immediate and determining effect on the others. It is necessary, therefore, to see the world as a whole and to weigh the measures taken to achieve victory in the light of conditions in all theaters. Although the European and Far Eastern regions appear as autonomous areas, they are merely parts of a single field of operations. The grand strategy of the war must thus be seen in terms of the intimate relationship between these centers of power in the world. We have seen that they consist of the Atlantic coastal region of North America, the European littoral and the Far Eastern coastland of Eurasia, together with a fourth and minor sector, India, which may increase in power in the future.

The facts of geography have determined the essential meaning of the relations between these areas by making it clear that the Western Hemisphere center of power could be outweighed by a combined Eurasian power potential, which would possess two and one-half times the area and ten times the population of the Americas. Even though, at the present time, the industrial productivity of the New World would almost balance that of the Old, the United States would still find herself irresistibly encircled by a superior force if she should ever be confronted by a united Eurasian rimland. Her main political objective, both in peace and in war, must therefore be to prevent the unification of the Old World centers of power in a coalition hostile to her own interests.

In order to achieve her objectives by concluding a victorious war, the United States has found it necessary to modify the traditional dependence on sea power which has determined her political and military strategy for the past hundred years. Both she and her ally, Great Britain, have been forced to accept the reality of the importance of continental warfare and the exercise of land power. Fortunately, they have had as allies the Soviet Union in Europe and China in the Far East so that they have been provided with continental bases from which to pursue one phase of the battle.

The course of the war since 1939 has made it clear that sea and air power must both be seen as instruments for achieving decisions on land. Since neither ships nor airplanes can function without land bases, the determining factor will always be the strength of these bases. This will be true at least until the range of military planes has been extended to enable any country to attack the home base of its enemies and return. Until then, advance bases will be necessary for the carrying out of any attack against enemy air power. The extension of such bases into a region dominated by the enemy will depend on the range of fighter airplanes because only their presence in the immediate area of the fighting will make it possible to hold the bases against determined enemy action. The course of the struggle in the Pacific has been a perfect illustration of this principle. We have been forced to advance slowly from island to island in order that our fighter defense should not be outrun by our bases.

Air power is not planes alone, but planes plus bases. The reverse statement is also true and bases must be defended by air power. The measure of success for a state in modern war is, therefore, the measure of co-ordination between air force, navy, and army and this will depend finally on the supremely important factor of supply. That strange term "logistics," which has been repeated over and over again in all the popular literature on the Second World War until it has become familiar to most people, refers to the basic problems of military supply. Today, as the equipment of armies has increased in size and importance and as the battlefields have been enlarged to include the whole world, logistics has become the most vital problem in warfare. The amount of cargo that must be moved in order to give fire power to armies now calls for almost superhuman efforts on the part of millions of people all over the world. Railroads, motor trucks, merchant ships, cargo planes, and a great variety of primitive means of transportation from camels to ox-carts, are being used by the United Nations to carry arms, munitions, and food supplies to the fighting forces. The problems involved in transporting the six to ten tons of matériel needed for each soldier leaving for the front and in supplying every soldier at the front with the one ton of matériel necessary every month to keep him fighting are tremendous and have taxed our ingenuity to the utmost.

Many writers on the subject of present-day military strategy have declared that the answer to most of the problems of logistics is to be found in the cargo plane. They have advocated the replacement of the steamer and the railroad by huge planes capable of carrying many tons of cargo. The course of the war and the figures which have been released in scattered form indicate, if only partially, the vast amounts of matériel necessary for today's fighting forces. They make it clear that the airplane, while it can help and supplement the efforts of the slower carriers, cannot replace them. To apply air power to a region demands not merely that planes shall be flown there but that they shall be kept in operation. That means a well-supplied line of intermediate bases, enormous quantities of special gasoline, bombs, ammunition, spare parts, spare engines, repair crews, ground forces, anti-aircraft defenses. Nowhere today is air power self-sufficient in the sense that it moves all its requirements by air. The Germans have probably gone farther than any other nation along this line, but their field of operation in Europe has been a continuous land mass with air bases every hundred miles or less, all connected by the densest railway and road net in the world. The United States has had to make her air power

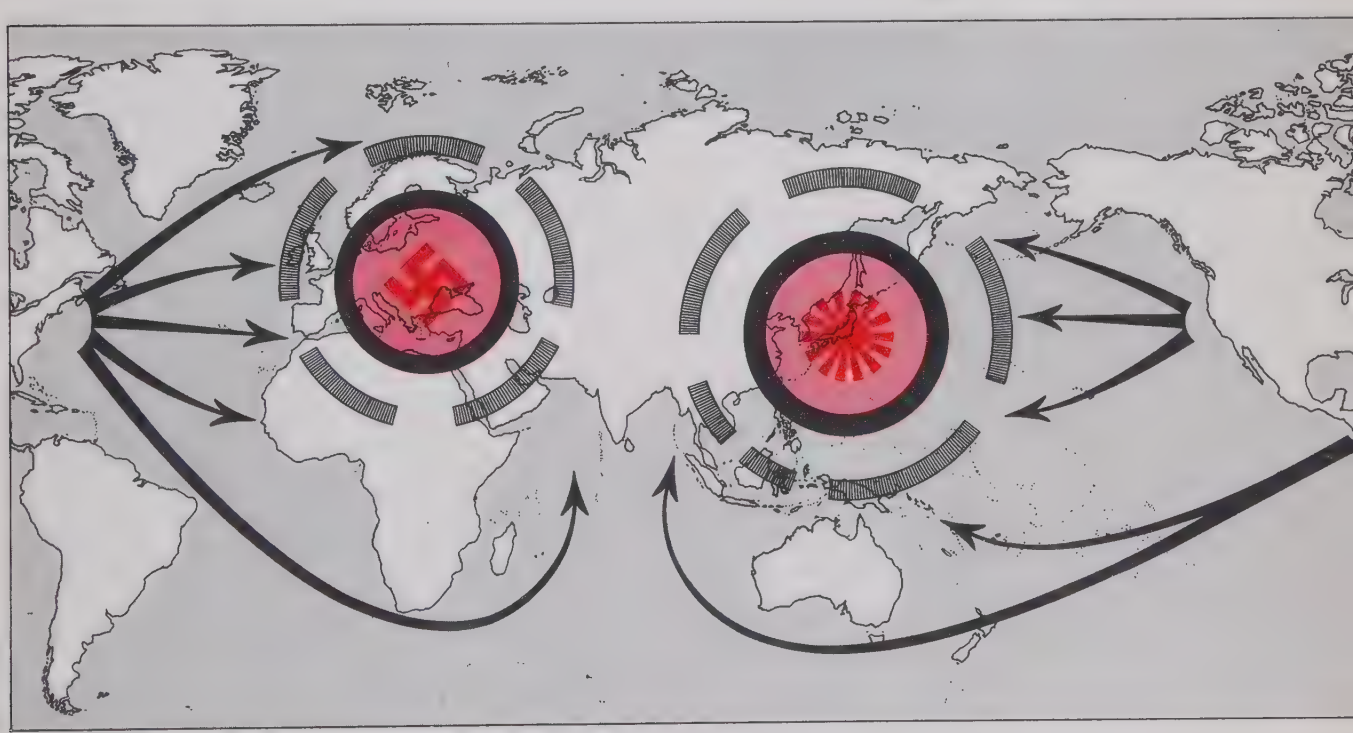
effective not on the periphery of her own continental mass but across a maritime zone of oceanic distances and polar waste. For her, the airplane could not play a very prominent part in the transport of cargo.

The silver bird soaring against a blue sky may be a symbol of freedom, of the conquest of space; it may suggest that man is no longer earth-bound; but all this, however beautiful as poetry, is not reality. The planes that manifest our air power are bound by invisible strings to their base of operations and beyond that base to wooden derricks in the Texas oil fields, to the concrete mountains of our power dams, and to bauxite deposits along the muddy rivers of the Guianas. The freedom of those soaring birds is deceptive. They lift themselves from the earth for flight because trucks have moved gasoline and lubricants and ammunition from railroad depots and ports and docks. American air power in Europe and Asia becomes air power at the end of a maritime route of communication fed by trains and ships, and the most successful German weapon against our air force is not the swift Messerschmitt or the powerful Junkers but the slow submarine which sinks our tankers on their route from Gulf ports to the far-flung battlefield.

Modern global warfare means that the Second World War could not be won from naval bases on the periphery of the great continental land mass of Eurasia. We have had to accept the reality of land power as it is expressed in continental warfare. Sea and air power have been made the instrumentalities to achieve decisions on land. The corollary of such a truth is the necessity of complete co-operation between all the fighting forces so that they may be welded into a single weapon for victory. Only our slow and sometimes painful learning of this inevitable requirement made it possible for us to win the battles of the Second World War.

Strategic Pattern of the Second World War

Given these basic principles of strategy in modern warfare, we can proceed to examine the actual

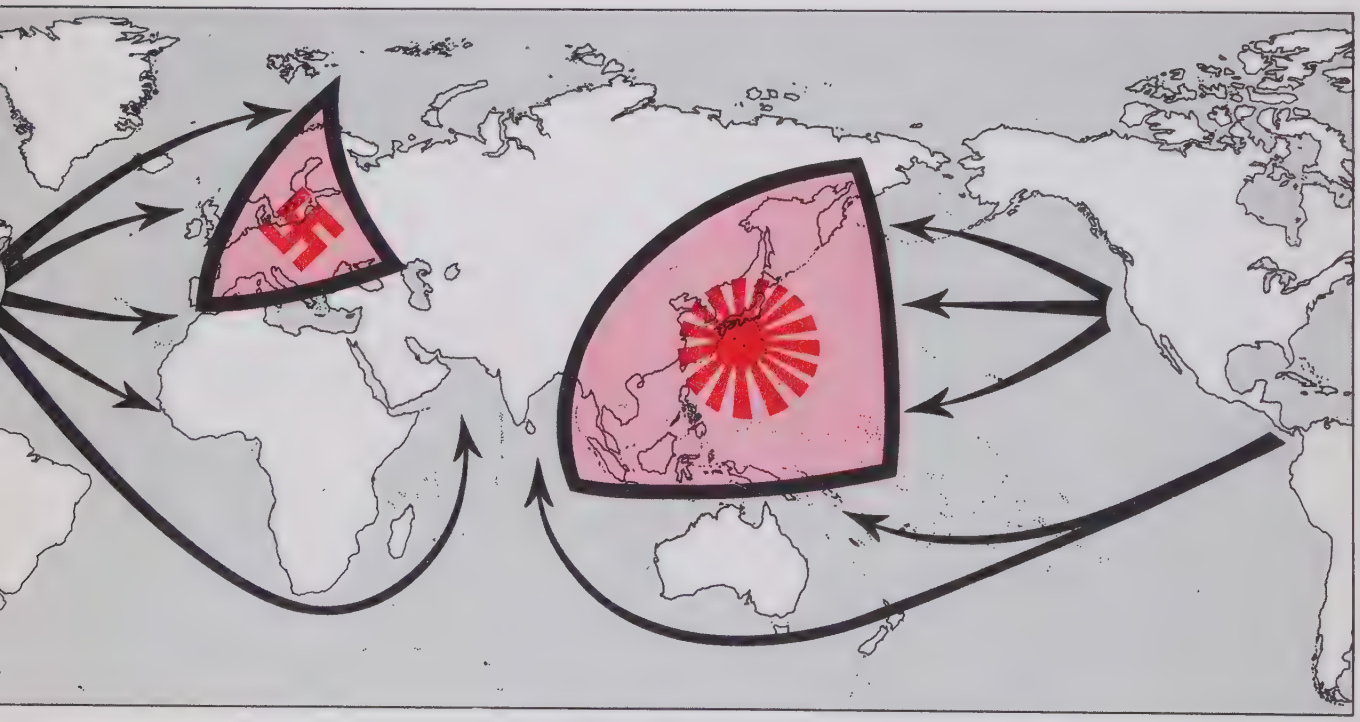


MAP 40. UNITY VERSUS PLURALITY

pattern of fighting in the Second World War. It was obvious from the beginning that it had to be a war of coalition against an enemy which functioned in each theater as a single power (Map 40). In both Japan and Germany there were unified control and one dominant strategic and political conception. To be sure, we achieved a degree of unity of military control that made success possible in the Mediterranean. The course of the war has brought more rather than less singleness of purpose and leadership to the United Nations, but the end of the war will pose the acid test. Our coalition with its not too single purpose will then have to deal diplomatically with an enemy, defeated to be sure, but undoubtedly united by the one aim of getting the best peace terms possible. A coalition peace is much harder to conclude successfully than a coalition war, but it must be done if we are to win through to our objectives.

Turning to the purely military aspect of the picture, we must notice that there have been two main battle zones which may be considered as two triangles (Map 41). Each of these fighting areas has two amphibian sides and one continental side. The first point of importance about this situation is the great similarity as well as difference between the position of Russia and that of the United States in relation to the two battlefields. The Soviet Union lies between them, but in terms of continuous land territory; the United States lies between them, but in terms of maritime discontinuity. The logistic problems for the two countries are, therefore, different, but both have had to make the same basic political decision concerning the concentration of their efforts on the two zones. Both have turned their main attention to the European triangle.

The lines of communication which join the United Nations to the two battle fronts are exceptionally long. Germany and Japan have had the very distinct advantage of being able to operate on interior lines of supply. This means that, in addition to the fact that the military and political command in each country has been in the hands of a single, unified government, their lines of supply have been short and easily controlled.



MAP 41. THE BATTLE ZONES, 1943

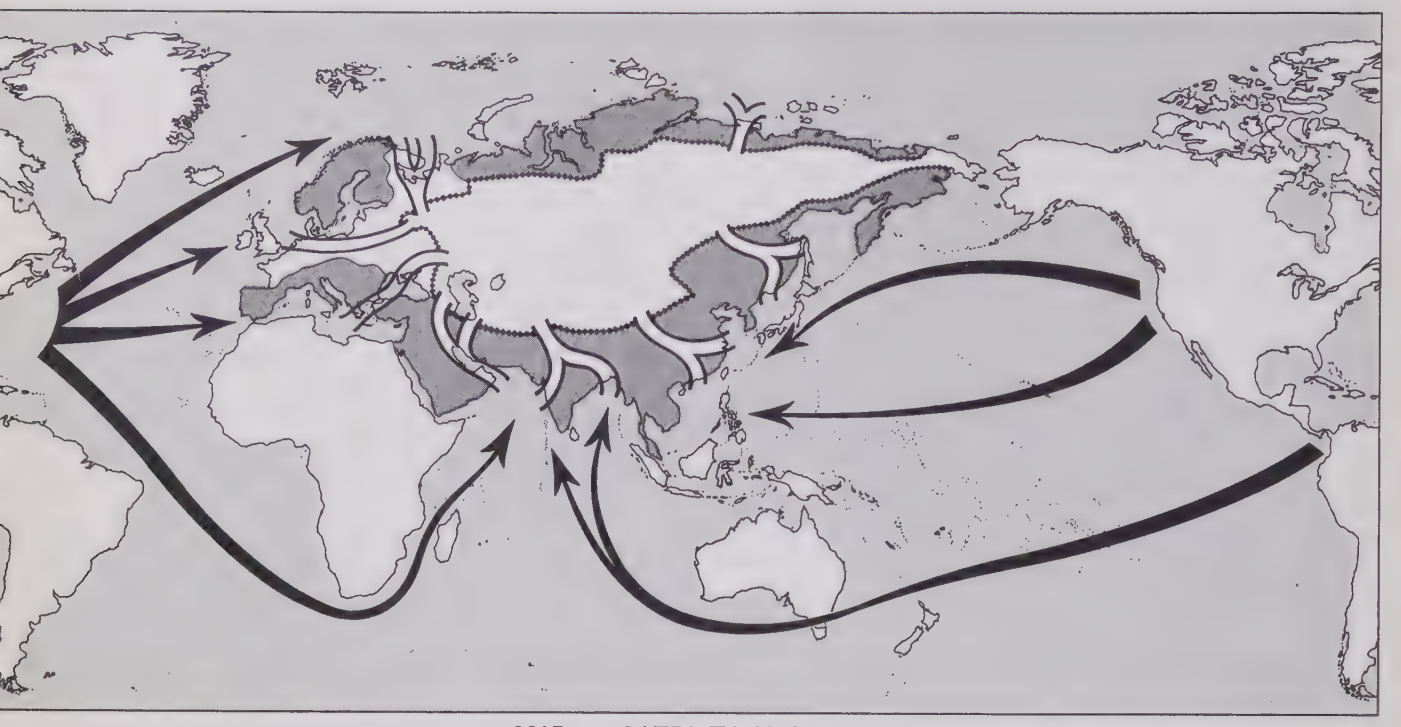
MAP 42. SPACE VERSUS POWER

They have, however, had to contend with one great problem because of the fact that, since 1941, they have both been involved in two types of warfare, continental and amphibian, waged on two different fronts. Russian and Chinese land power and the sea power of Great Britain and the United States have forced both Germany and Japan to wage war on two fronts and in two elements at the same time.

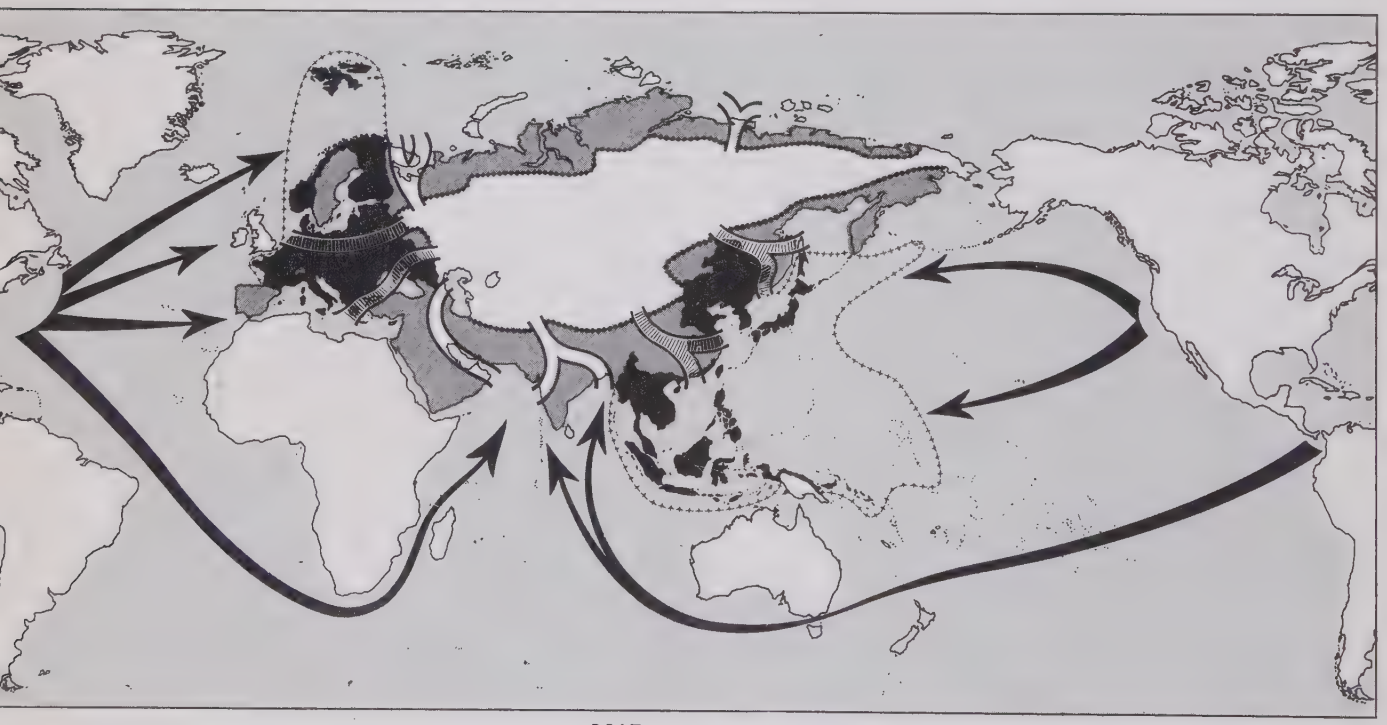
Our opponents endeavored to follow the broad strategic principle suggested for those who operate along interior lines. They attempted to finish one war before undertaking the next one. It is to our great advantage that they did not succeed. Japan was prevented from overcoming the Chinese before she took on the Anglo-Saxon powers. Germany had more success in that she did defeat the Poles before she attacked the French and the French before she took on the Russians, but she failed to dispose of the British before turning toward the Soviet Union and she was still involved with both the British and the Russians when the United States entered the conflict. This failure represented the turning-point in the struggle.

The greatest problem facing the United States when she entered the war was how to become effective directly as a fighting force on the two amphibian sides of the battle zones. Notwithstanding our extraordinary Anglo-Saxon predilection for thinking that only naval warfare is important, we have had to learn the great significance of the continental side of the battle zones where the land power of Russia and China has been exerted. Landings on the shores of Europe and on the islands of the Pacific would not have been sufficient to bring about the defeat of the German and Japanese power if, at the same time, the Russian and Chinese fronts had been erased.

The situation on these two land fronts is illustrated by the manner in which our continental allies kept themselves from defeat by the strategic use of space (Map 42). They were able to retreat far into the interior of their territory while retaining their armies intact. Such a defensive use of space could, however, be employed with unbounded generosity only if the areas abandoned



MAP 43. GATES TO THE HEARTLAND



MAP 44. AXIS BARRIERS

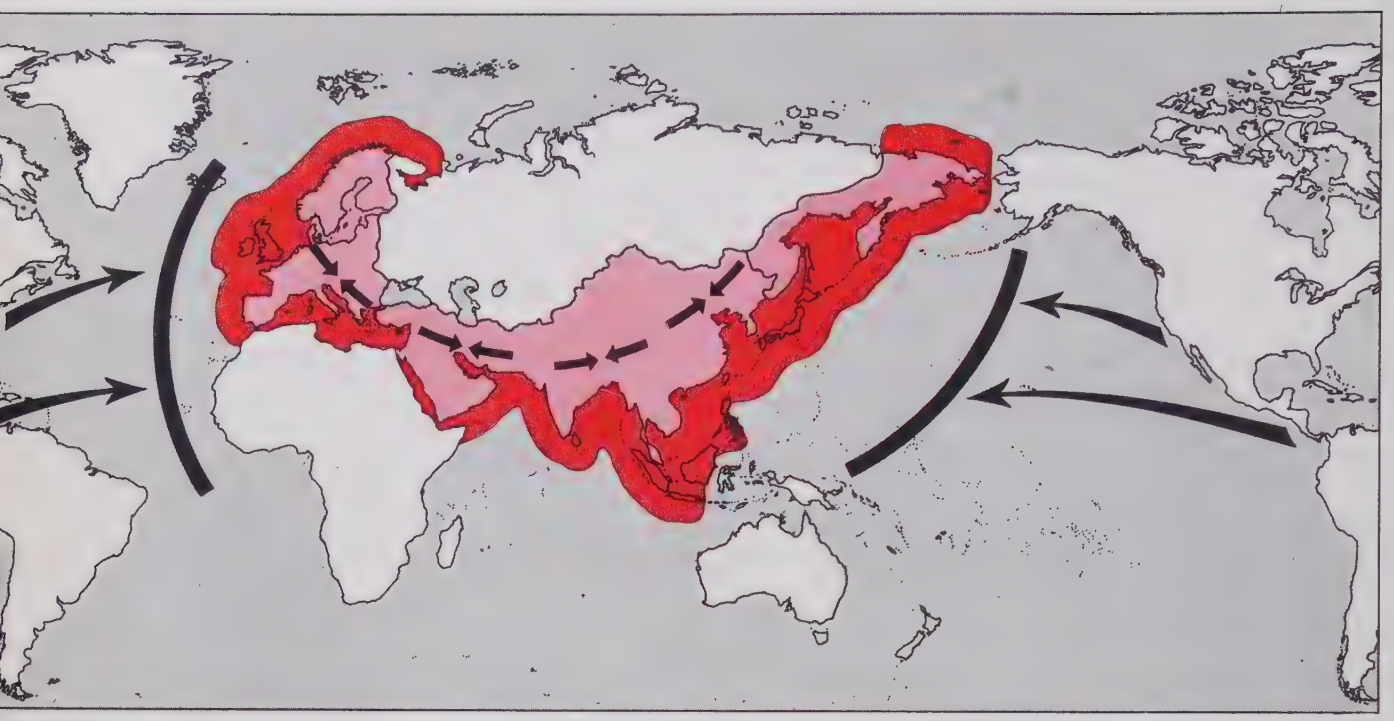
had no special significance from the point of view of power potential, or if it were possible to receive aid from outside. Russia's power lies to a very large extent west of the Ural Mountains while that of China lies mostly in the coastal regions. Thus, the continental battle fronts were not able to sustain themselves independently but have had to be reinforced with matériel from the United States and Great Britain. The land armies of Russia and China have of necessity been an integral part of the whole Allied war plan.

This fact means that the supply lines for goods and matériel to Russia and China have been of tremendous importance to our conduct of the war and much of our energy during the first two years had to be devoted to the securing of the routes that were available. To reach Russia, we had to gain access to the land-locked heartland region of the Eurasian Continent. We have seen how the topography of the Old World provides only a very few passages into this area and makes those few of definitely limited serviceability (Map 43). The swift advances of Germany and Japan at the beginning of the war cut us off almost completely from the land approaches so that the Arctic and the Indian Oceans remained through the first years of fighting as the only routes continuously available (Map 44). Their usefulness is, however, inevitably limited by climatic and topographical conditions. With the opening of the European Mediterranean to Allied traffic, the Indian Ocean routes have become more practicable. In the Far East, however, we have been almost completely cut off from both Russia and China by the expanded power of Japan. The land routes into China from Russia and India are of limited capacity and have failed to make available to the Chinese armies anywhere near the necessary amount of matériel. The final defeat of Japan depends largely upon the effective remedying of this situation.

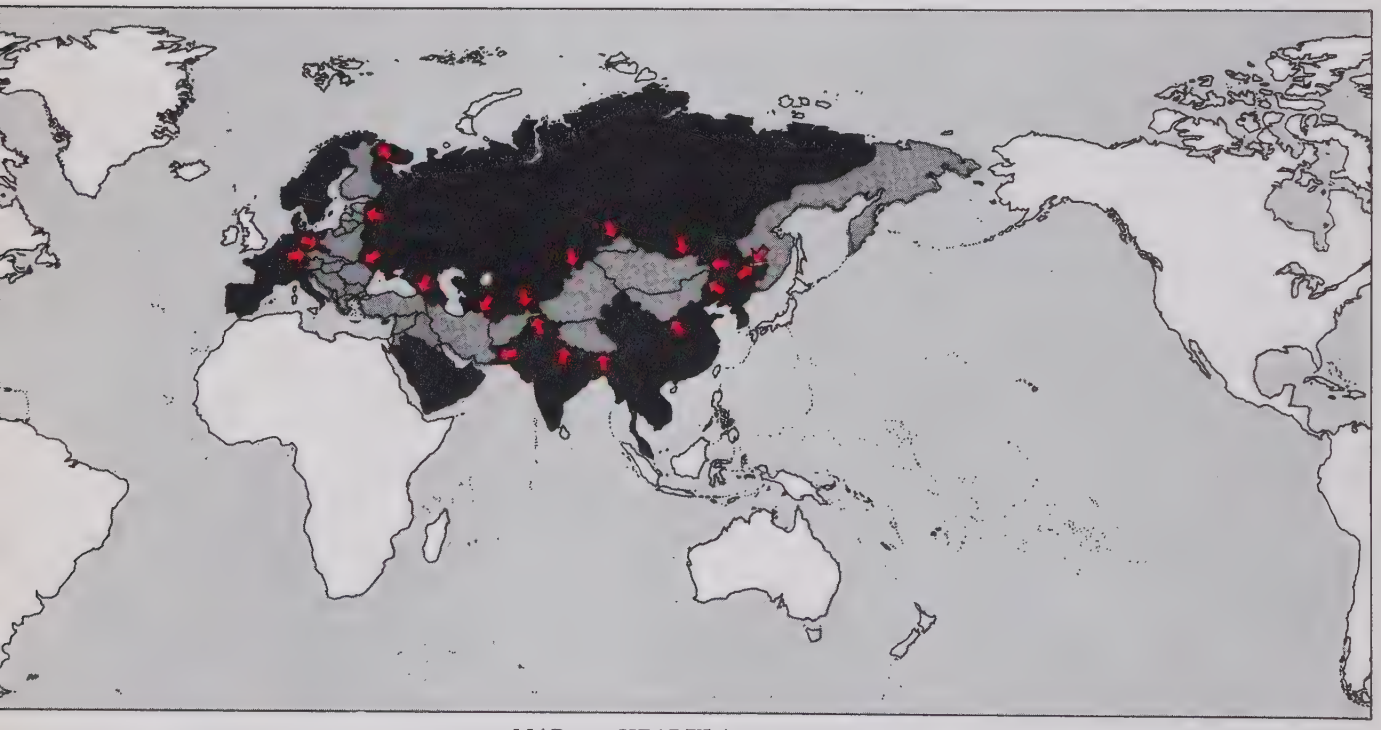
Eurasian Conflict Zones

The demands of the strategic position in which the Second World War found us have been dealt with effectively, but the basic geographic factors which determined the nature of those demands will not be eliminated by the successful conclusion of the war. It is those same centers of power which composed the battle zones in this war which will continue to indicate the strategic areas for the organization of the peace. It is the peace-time relationship between the power factors in these regions which will make or mar the security of the world in general and the Western Hemisphere in particular. Because of this, the United States is obliged to safeguard her position by making certain that no overwhelming power is allowed to build itself up in these areas. We have succeeded in dealing with this situation by force of arms; we must see to it that we conduct our policy in the post-war period so that the same aim is achieved without fighting. Our previous analysis of the topographical features which help to determine political relationships on the Eurasian Continent will now give us a picture of the zones of potential conflict in the Old World in terms of which our policy must be conducted (Map 45). The power struggles of the Eastern Hemisphere have always been fought in reference to the relations between heartland and rimland; the power constellation within the rimland itself; the influence of maritime pressure on the littoral; and, finally, the participation in that pressure exerted by the Western Hemisphere.

In the first place, there has always been, historically, a strong military and political pressure outward from the heartland (Map 46). The ancient tribesmen of Central Asia have, time and again, swept across the central plain and raided or conquered sections of the rimland. In Europe, this phenomenon is represented by the thousand-year struggle between Teuton and Slav over the buffer region of Eastern Europe. In the Near East, Russia has struggled against the Turks and the British in her attempts to reach the Indian Ocean. The post-war period will witness a continuation of the struggle of Russia and China for control and influence over Sinkiang Province and Outer Mongolia. The mineral reserves, either suspected or proved, in this region will certainly pro-



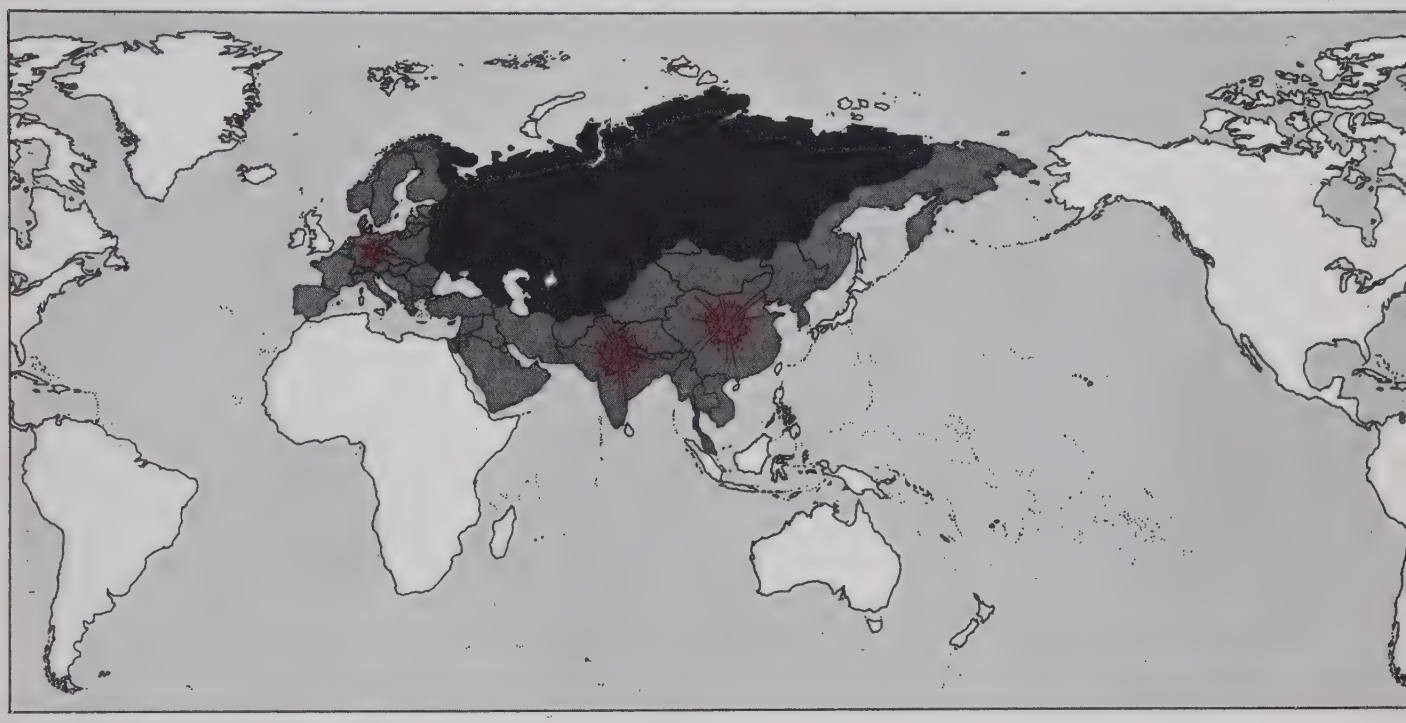
MAP 45. EURASIAN CONFLICT ZONES



MAP 46. HEARTLAND VERSUS RIMLAND

vide added incentive to the struggle. In fact, it may be that the pressure of Russia outward toward the rimland will constitute one important aspect of the post-war settlement.

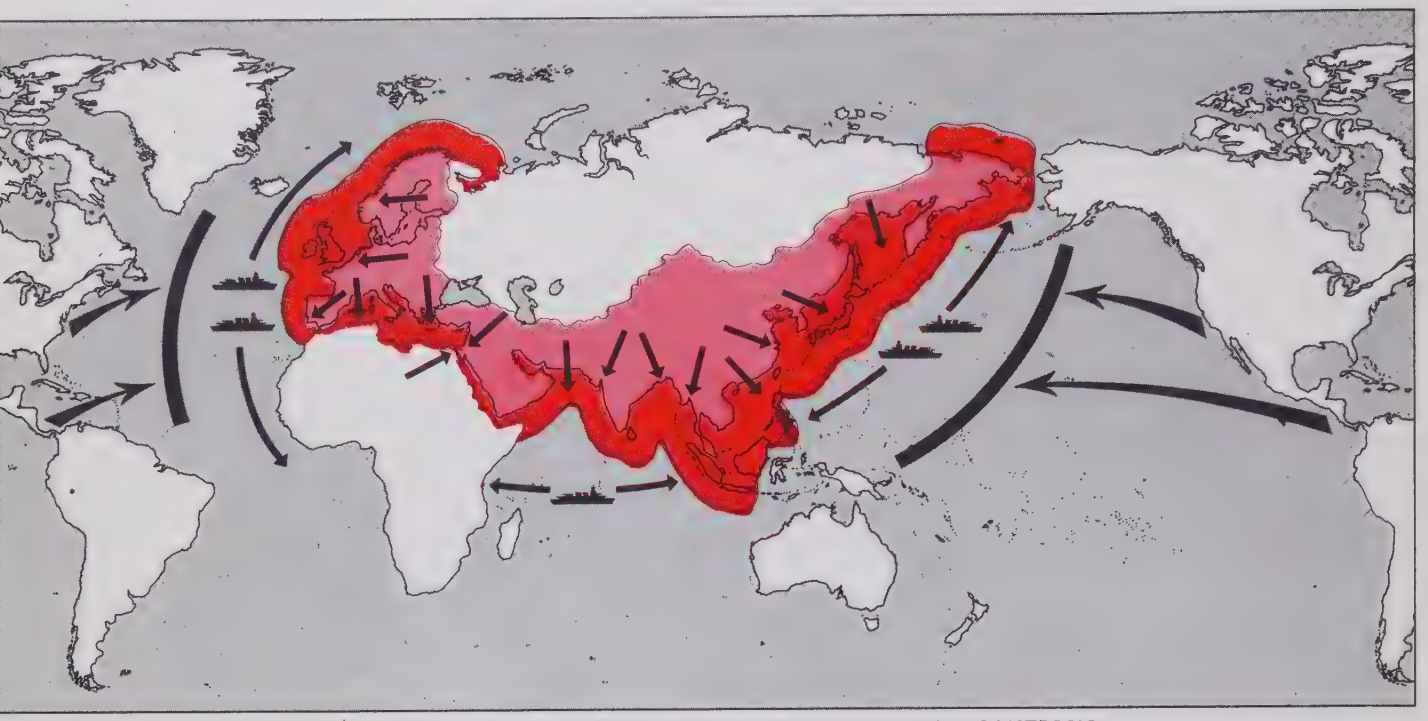
The next region of conflict is within the rimland itself (Map 47). In Europe, the distribution of power between France, Germany, and Eastern Europe will continue to be of the utmost importance. The fact that Europe is a region of highly developed nationalisms organized into a multiplicity of states, is not going to be changed very radically by the peace. Germany, which controls the largest single power potential on the continent, must be balanced by the power of France and that of Eastern Europe, but no one of the three regions can be allowed to gain complete control. It will be the task of the three super-powers during the post-war period to see that an adequate distribution of power is preserved.



MAP 47. INTRA-RIMLAND CONFLICT

In both the Indian Ocean and the Far Eastern sections of the Eurasian littoral, the growth of nationalism and the resultant tensions between national states will be of tremendous importance. India, either as part of the British Empire or as an independent state, will be the dominant power on the Indian Ocean shore. If she fails to remain united after she has gained her independence, a terrific struggle will ensue between the many small states of the peninsula. The British power will, in any case, remain strong on the African and Australian shores of the Ocean. On the other hand, the dominant power in the Far East will undoubtedly be China, providing she achieves real unification and provided that Japan's military power is completely destroyed. Russia's strength in the north will be the only continental balance to the Chinese position. If the Western Powers are to retain any influence at all in the region, they will have to establish island bases for their power. In view of the limits which there undoubtedly are to the power resources of the Chinese state, such bases will probably be sufficient to counterbalance any future attempt of China to dominate the Far East completely.

The region which has the most immediate concern for both Great Britain and the United States



MAP 48. MARITIME VERSUS AMPHIBIAN CONFLICT

is the contact area between the littoral of Eurasia and the string of marginal seas which surrounds it (Map 48). The British Empire has developed its world-wide power from a maritime homeland situated on the British Isles by controlling the long series of inland and marginal seas stretching around the continent. In this way, she has been able to exert blockade pressure on the amphibian rimland. Until almost 1900, that encirclement of the Eurasian Continent by sea power was controlled by Great Britain alone. At the end of the century, the United States, by taking over the Philippines, extended her power to the South China Sea and, after 1902, the expanding power of Japan led Britain to allow her to take over part of the control function in the Far East. Now the British Empire has had to struggle desperately to keep Japan from establishing exclusive control of the Far Eastern section of the maritime zone.

There is no geopolitical area in the world that has been more profoundly affected by the development of air power than this one of the marginal seas (Map 49). No longer is sea power effective without air power, and aircraft has little strength if based on small, widely-separated areas. Because of this, many of the geographic points that were selected and controlled by the British Empire to serve as naval bases are completely inadequate from the point of view of air defense. It has also become evident that land-based aircraft are superior to carrier-based planes. This means that sea power can be effective against rival sea power only where both are removed from support by planes from land bases.

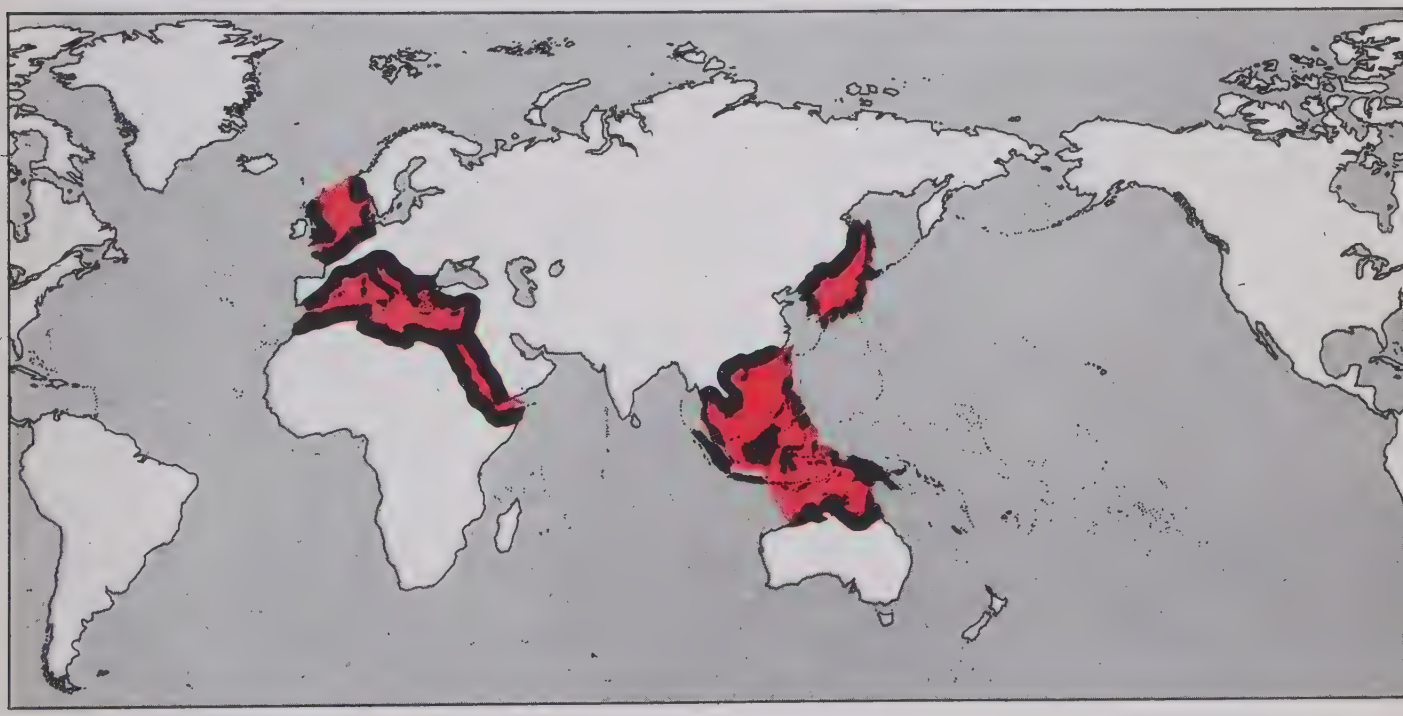
This fact does not, however, mean that the whole littoral of the Eurasian land mass must inevitably fall completely into the hands of Eurasian air power. There are certain important sections in which it is possible to give land-based air support to naval operations from both sides. Our North African and Italian campaigns have illustrated the fact that, if there is an opposite coast on which air power can be based, certain regions of the Old World can be effectively controlled from these points. The North Sea, the European and Asiatic Mediterraneans, and the Sea of Japan can be con-

sidered in this classification, for the opposite coasts of these marginal seas can support air power which could be utilized against a continental air force. This would, however, only be possible if the power behind the air force on the continental side did not represent the unified strength of the European and Asiatic centers of power. It will, therefore, still be true that those nations which control the opposite coasts of the marginal seas must prevent the domination of the rimland regions by a single state. They will also, as an added precaution, find it advisable to ally themselves with the heartland power of Russia in order to gain continental support against the threat of rimland power.

Access of the United States to Eurasia

If it is of interest to the United States that no overwhelming power be allowed to develop in Europe and the Far East, the question arises as to how she is to achieve this political objective. She must find some way of exerting her power in these regions during peace time so that she will not have to allow a situation to develop which will force her into a third war.

It is urged by some of the recent converts to geopolitics that the most direct route to the Old World and the one that could most effectively carry our influence into that section of the globe is the one across the Arctic Ocean by air (Map 50). They suggest that the Arctic will become the great transit zone of the future because it will provide the shortest routes to the heart of the Eurasian Continent. To them, the shores of northern Canada and Siberia will become a new frontier of contact between the Old and the New World and, in this realm, the United States, with her tremendous air power, will be supreme. The work of Vilhjalmur Stefansson and other intrepid explorers has convinced a wide public that the Arctic region is not everywhere a frozen, desolate land of ice and snow, and that adaptation to its requirements will permit man to survive its hardships. The Russian government has undertaken vigorous



MAP 49. AIR POWER AND MARGINAL SEAS

MAP 50. POLAR ROUTES

exploration and development of northern Siberia and the Canadian government has followed the Hudson's Bay Company in its penetration into the northern lands. Man is everywhere pushing north, digging for the riches of the earth below the eternally frozen soil of the tundra and even growing barley beyond the timber line. The fact remains, however, that the Polar Mediterranean and its surrounding territory represent the greatest inhospitable area on the surface of the globe.

It is not an accident that the great masses of the world's population are concentrated on the rimland of the Eurasian Continent and along the eastern seaboard of the United States in the lower latitudes instead of in the frozen north. Man will always prefer a more co-operative environment.

Even if the encouragement of the Soviet and Canadian governments should inspire a few million hardy souls to spend their winters along Coronation Gulf and the shores of the East Siberian Sea, such migrations would not disturb the present centers of population density. They will remain in the lower latitudes. This means that communication between them, if defined in terms of great circle routes, will not cross the Arctic Circle but will span the Pacific in the neighborhood of the Aleutian Islands and the Atlantic in the vicinity of the present air line from Newfoundland to Ireland. Air power has thus brought new strategic significance to the north country and particularly to Alaska and Greenland, the vestibules for air approach to the New World, but it will not transform the Arctic Ocean into a transit zone comparable to the North Atlantic and the North Pacific.

We grant the new importance of Greenland and Alaska, but it is well that the reason for this should be understood. It lies in the military geography of the Baltic Sea and the Sea of Japan, not in the economic geography of the Arctic Ocean. We have been forced, during this war, to travel to Siberia and China by way of Alaska and to European Russia by way of Iceland and Murmansk because we have no other choice. Japanese sea power has kept our ships out of Vladivostok and the coastal cities of China, and German land power has kept our fleet out of the Baltic. The northern route is, in fact, a detour around our enemies. That it exists and can be flown is valuable, and the return of Mr. Willkie from Chungking to the United States by way of Siberia and Alaska is a dramatic illustration of the fact that, notwithstanding the conquest of enormous territories in Europe and Asia by the Axis powers, the United Nations have still been able to circumnavigate the earth by air as well as by sea. A single plane trip, however, does not make an air route, and many planes a day would not move much war matériel.

The air power which the United States can exert across the Arctic Ocean will remain very limited and the amount of aid that could reach our allies by air transport via Yakutsk and Dickson Point must remain a mere trickle. It is equally unlikely that peace-time trans-polar traffic will grow to any considerable dimensions. There may develop a very special and very limited passenger service, but the products of American field and factory will continue to reach their markets in Europe and Asia by the great circle sea route.

These facts make it clear that the United States will have to depend on her sea power communications across the Atlantic and Pacific to give her access to the Old World. The effectiveness of this access will determine the nature of her foreign policy. In the transatlantic zone, it will not be sufficient for her to accept obligations to aid Britain against a threat from the continent or to aid the continent against a threat from outside if she is not physically in a position to carry out such an obligation. For this reason, the closest co-operation between Britain and the United States is absolutely necessary. The effectiveness of the British Isles as a base for action against the continent or in co-operation with it has been amply proved by history and they are an indispensable adjunct to any attempt by this country to take part in the establishment of security in the world.

In this respect, the United States is in the same position as Great Britain with regard to the European Continent. Neither of them can exert her armed strength fully except through a continental ally who can provide a base from which land power can be exercised. The position of France in the post-war period will certainly not be strong enough to make her co-operation alone sufficient to assure the security of Europe. Russia, on the other hand, will be the strongest land power on the continent and it will be to the advantage of both Britain and the United States to have her as an ally. Indeed, as long as she does not herself seek to establish a hegemony over the European rimland, the Soviet Union will be the most effective continental base for the enforcement of peace. At the same time, her own strength, great as it is, would be insufficient to preserve her security against a unified rimland. The three super-powers together will, therefore, be the only effective guarantors of the European situation.

The United States will, however, also be faced with the question of whether she will seek other bases in the transatlantic zone in order to bring her power closer to the area where it may have to be exerted. Mere alliance with Great Britain and Russia will not be enough to insure her ability to support her obligations to the security system, nor will it be enough to give her the strength necessary to make possible an equilibrium of power among the three great states. The establishment of her naval and air power on Greenland, Iceland, and Dakar would be an important step in the process of guaranteeing her continued presence in the peace settlement. This could doubtless be done according to the same formula by which her power has been extended to the Bahamas and South America, that is, by means of the leasing of land for the establishment of the bases without the transfer of sovereignty over the territory. It would not be a question of imperialistic expansion, but the necessary establishment of a balancing power in certain strategic areas. There would be a gain in security not only for the United States but also for the nations of Europe if the great New World state should acquire a position from which her power could be made available in the Old World.

Such an establishment of the United States in the off-shore waters of the Eurasian Continent would, inevitably, meet some opposition in Great Britain. It would mean the loss of her unique position of monopoly control of the sea accesses to the Old World. On the other hand, it would also mean that she would receive from us a binding political commitment concerning the peace structure. Because of this, the chances are that she would welcome our acquisition of bases outside the Western Hemisphere. At the same time, we would still find it impossible to complete our approach to the European Continent except by going through areas that lie under the control of British sea power. We would thus find ourselves restrained from the attempt to develop unduly the exercise of our power in the European zone, and would be constantly aware of the fact that British power is of the most vital importance to the whole organization of post-war security. It is, therefore, easier to conceive of the United States as an ally of Great Britain and Russia than as a free and independent participant in a European security system.

In the transpacific zone, the facts of the situation are different, although the obligations and the means to carry them out will undoubtedly be very similar to those in Europe. In Asia, the threat to the balance of power has in the past come from the nation which has been in a position to control the sea access to the mainland littoral. With the defeat of Japan in this war, the control of sea access to the mainland will cease to be in her hands, and China will be left as the largest and most powerful state in the region. The independence of the Philippines, Java, or Burma will depend on the effective establishment of the power of the western states in the region. The strength of Britain, Russia, and the United States must be available to preserve an equilibrium of force. Russia and the British Empire are already established but the United States has never had a really effective base for her power. If we are seriously interested in maintaining the security of the Orient, and for our own safety we are forced to be, we must secure additional naval and air bases on the same terms by which we acquire them in the transatlantic zone. The augmentation of Alaska with bases on some of the mandated islands and the re-establishment of our military power in the Philippines would be a minimum arrangement.

A Foreign Policy for the United States

Within the framework of a geopolitical analysis, the United States is seen to be geographically encircled. The distribution of power resources gives to the Old World greater possibilities for the exertion of force than to the New World. To be sure, these geographic conditions are subject to a certain amount of modification by technical advancement and by the psychological capacities of different peoples. A geopolitical analysis of the security problems of the United States one hundred years from now will undoubtedly be quite different from the present one. The situation at this time, however, makes it clear that the safety

MAP 51. THE FUTURE OF THE WESTERN HEMISPHERE?

and independence of this country can be preserved only by a foreign policy that will make it impossible for the Eurasian land mass to harbor an overwhelmingly dominant power in Europe and the Far East.

The United States must recognize once again, and permanently, that the power constellation in Europe and Asia is of everlasting concern to her, both in time of war and in time of peace. For a while, when we were a young, growing nation, we were well aware of the significance of our position in the world. Although our first statesmen were concerned that we should not become involved in the petty, internal quarrels of Europe and were primarily interested in remaining at peace with the world, they frankly recognized that we had an important place to fill and must do it by means of our own strength and resources. They did not fail to understand that the actions of European nations might easily be of serious concern to us and that we must be ready to assert our independence and protect our interest in no uncertain terms.

We quickly lost that awareness when we became a great power of continental dimensions and began to develop, not a world outlook, but a strange provincialism. We turned our gaze inward, and became occupied with the internal development of an unconquered wilderness, with the building of a brave new world, and with the problem of preserving our unity in the face of profound regional differences. For a time, during the First World War, we were jolted out of our complacency and brought face to face with the ugly realities of power in the international world. We rushed to the assistance of the Allies and were instrumental in restoring a balance in Europe and Asia, thus re-establishing our security. Still, however, we failed to understand the real meaning of the struggle we had been through. We were completely blind to the fact that, in order to preserve our security, we had to be willing to co-operate in the political life of Europe and Asia. We were offered an excellent opportunity to do this by our own president, Woodrow Wilson. The League of Nations was set up but we would have none of it. Although, in the form in which the Treaty of Versailles organized it, it was far from perfect, it still embodied a profound idea and a political conception to which we must return. It represented a moral and legal basis for our indispensable participation in the power struggles of Europe and Asia (Map 51).

Someday we may have the kind of world order that is being visioned by many of our writers today. We may eventually achieve the organization of a world state and abolish the independent sovereignty of nations. Even then, we must remember, the element of force in political affairs will not be eliminated. But, until that moment arrives, we must envisage the international community in terms of more or less independent states, bound together by commitments in the form of alliances and probably some form of international organization comparable to the League of Nations. Indeed, just such a pattern has already emerged with the signing at the Moscow Conference of October, 1943, of the Joint Declaration by the governments of the United States of America, the United Kingdom, the Soviet Union, and China. It is becoming more and more clear that there will be no superstate to guarantee to the members of the world community life, property, and the pursuit of happiness. We shall continue to depend primarily on our own national strength, for we know that the failure of a great state to consider power means its eventual destruction and conquest. It has meant the downfall of all the empires that have been tempted by the flabby ease of unpreparedness. At the same time we must refuse to embrace the ugly tenets of the Axis leaders who think only in terms of the aggrandizement of power and the eventual domination of the world.

Today, we are looking forward to a new peace after the Second World War. The basic issues will remain the same because the geographic factors continue to operate. Balanced power on the Eurasian Continent is one of the objectives for which we are fighting and the establishment of such an equilibrium and its preservation will be our objective when the fight is won. It will then be to the interest of the United States to continue to collab-

orate with any powers seeking to prevent the consolidation of the rimland regions. The other two great powers in the world, Russia and Great Britain, will also find their security threatened by the establishment of any hegemony in Europe and Asia. These three states can, therefore, provide the foundation for an effective security system. Since neither of the three can afford to stand alone and isolated against the rest of the world, their co-operation will serve their own best interests.

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